ISTANBUL TECHNICAL UNIVERSITY ★ GRADUATE SCHOOL OF SCIENCE ENGINEERING AND TECHNOLOGY

CHILDREN PARTICIPATION AND POST OCCUPANCY EVALUATION IN DEVELOPING A COMMUNICATIVE LANGUAGE TO (RE) DESIGN EDUCATIONAL ENVIRONMENTS

Ph.D. THESIS

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ISTANBUL TEKNİK ÜNİVERSİTESİ ★ FEN BİLİMLERİ ENSTİTÜSÜ

EĞİTİM ORTAMLARININ (YENİDEN) TASARIMI İÇİN BİR İLETİŞİM DİLİ GELİŞTİRİLMESİNDE KULLANIM SONRASI DEĞERLENDİRME VE ÇOCUKLARIN KATILIMI

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Odeta Manahasa, a Ph.D. student of İTU Graduate School of Science Engineering and Technology student ID 502112020, successfully defended the thesis/dissertation entitled "CHILDREN PARTICIPATION AND POST OCCUPANCY EVALUATION IN DEVELOPING A COMMUNICATIVE LANGUAGE TO (RE) DESIGN EDUCATIONAL ENVIRONMENTS", which she prepared after fulfilling the requirements specified in the associated legislations, before the jury whose signatures are below.

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To all children,

FOREWORD

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ABBREVIATIONS

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CHILDREN PARTICIPATION AND POST OCCUPANCY EVALUATION IN DEVELOPING A COMMUNICATIVE LANGUAGE TO (RE) DESIGN EDUCATIONAL ENVIRONMENTS

SUMMARY

The research presented in this thesis puts on centre children, their right to participate and the experience they can transmit as users of different spaces. The study started with the urge to comprehend the child's understanding of space design and understanding the ways of accomplishing design with children, because incorporating children in the design of spaces that are used by them is their natural right. The interest of the researcher relates to how adults may change the situations and how can be designed ways for enhancing children's participation. The study pursues with a focus on school buildings as the spaces where children spend most of the day time and as institutions that play a crucial role in drawing the lives of the people. Stated clearly, the aim of the research is to reconceptualise "child's participation in design" and "design of educational buildings" as a form of action research in architecture, by observing the relation between the children and the built environment and by involving them in proposing spaces of their own.

A further purpose of this research is to include children in the evaluation of school buildings in order to assess their appropriateness, to learn from them and to produce together designs toward school models where their ideas are reflected. The premise of the thesis is that children should be involved in every step of such type of researches. This study engages children in a shift from the focus of the evaluation to the involvement of children to the contribution of production of architectural works. It treats children equal to the grownups. In the local context, that this research took place and where the need for new schools is high, models that give priority to children respect and spaces for them and by them will help in raising the awareness of the adults. Questions such as: what is the role of the physical environment in contemporary schooling and how much present is this physical environment effect in schools in Albania? How can design projects with children support a dynamic approach to learning compared to the present conditions' support? How children participation in design is related to POE? Can POE and participation relation support research on engaging children's perspectives in school design and propose a communicative language toward that?

To give answer to all these and other questions that developed through the study, a number of objectives can be listed. Firstly, deepening an understanding of children's role in school design by studying the methods and the factors that influence the child's participation for the selected group age of this study. Moreover, an objective of the study is exploring the methods that could emphasise the bond POE and participation have that influence the space preferences and analysing of results in the workshops. Such results would give light to other developments in the school building design considerations.

Educational system and educational buildings are a hot topic in Albania. They are more than challenging not only for educators and children, but for politicians,

researchers, designers, as well as parents. Moreover, such settings are in urgent need for change or new design as the country is in a rapid development (in all fields) which drives new challenges.

Thus, a brief view of the past of the school buildings and school systems in Albania is investigated with the aim to understand how much the school building reflects the pedagogical needs and whether there existed examples where children were part of the decisions about the school buildings. At what level the children's autonomy was and is in country of Albania, because as it is defined in the literature; participation is a way toward autonomy. In Albania, there are not documented cases where children are part of the school design. Therefore, participation gain importance as a process of involving children by widening their role. There are several steps to be taken to achieve this objective; a planned methodology with the adults' support and offering the opportunity for kids, which besides being a necessity are indicators of democracy and human rights. Scholars and researchers have developed different models of participation to arrive at a solution to what is mentioned earlier. In general, the models of participation are exhibited diagrammatically, among which the ladder schema is the most popular. Levels on the ladder indicate the positive and the negative aspects of each type. The higher the level the better is participation, unless there are different context situations. Apart from level model, there are linear models which as levels reinforce the idea that the problem of participation is continuous. Other models, which are not less in number, are setting some structure for individual participation. However, all the developed models so far advice to go away from the tokenism. In this line child-adult cooperation and dialogue is essential.

In the other side Post Occupancy Evaluation in this study is used with an interest in implementing it toward a participatory language. POE provides feedbacks on design by constructing some foundations about future designs but, at the same time it influences improvements in building in different phases by not leaving place to assumption. Moreover, in educational setting it identifies space preferences of children and the way the they use the building.

POE has its own developed methods which time to time crash to those of the participatory design. Nevertheless, more than a crash, in learning spaces, it is important to unite the methods. In this way child-adult relation would provide fruitful outcomes for learning spaces, which consecutively influence pedagogical outcomes and child empowerment.

The research is considered in two phases. The first phase takes care of children participation in school building design and evaluation with some methods present in the literature, applied to children of different ages and children of different school subjects. The second phase handles the result of the first phase and tries to develop strategies and methodologies of participation for children with children. The results from phase one and two offer perspective issues about the school building designs and upgrading.

The research of this thesis, undertaken 2014-1015 employed a multi-method approach. It is confined in 10-14 years old children participation in design by focusing on schools in Tirana.

Such an empirical research approach finds application in several research fields. The methodological approach is extended with surveys, questionnaires, dialogues, co-decision, drawings, "if I were" activities and workshops. POE questionnaires being them visual or indicative are adopted in this research with the aim to find out more data on what kind of spaces the children focus is. A walk through experience, as an

evaluative method of participation, concludes the set of the research exercises. The researcher tried also social networks as means of announcement and fast contact.
Further to this, surveys and informal dialogue helped in providing valuable insight into child participation process and into understanding the children's behaviour in the school settings. Methods and techniques in this research, explore children participation in a good relation to Post Occupancy Evaluation as tools to engage a diverse group of participants in an evaluation toward a group of children that is being trained through the research.
The research firstly experimented into different school settings by focusing later the research only on one building. All the workshop and exercises' products are documented by photo and video shooting, which together with the products in themselves provide quantitative results. Any feedback they provide based on their space experience and understanding, give clue to space use and amelioration. Children search for better and qualitative school environments is expressed even by adding and removing some functions.
The whole research process beside the program and physical appearance of the school buildings attempts to uncover child perceptions for verification of concepts of learning environments' design. Accordingly, concepts of flexibility, horizontality, campus like environment and transparency are manifested in the results and findings of this study through the methods implemented.
Methods like drawing resulted to be effective, especially for young kids and sure for those who have drawing abilities. Poster representation resulted as an effective method for group works. Through essay writing children give descriptions of aesthetic perceptions and intangible aspects. By intangible, here is meant children's feeling, senses and other experiences. Visual questionnaire reveals not to have relation to age. It has an impact on child's space perception and it enriches children vocabulary. It was also effective on the impact it had in terms of enhancing children' space perception and understanding qualitative spaces.
Walkthrough was effective because it was easy for everyone to express in words and at place their opinions. It worth because together with the other workshops children had gradually extended their design skills. By the end, they were able to evaluate physical environment, read architectural plans and propose possible improvements. Children evaluated the process as an opportunity to look at the surroundings differently.
The other point of research's influence is how this whole research contributes. All the workshops, all the exercises done and all the methods implemented, though known and tested in several other researches, help to learn more about children working circumstances. They give clue about their likes and dislikes, places they prefer to study and to spend time and socialize. Research reveals the best time and venue of participation for maximum results. It gives indications about the researcher's intervention and ways to deal with different ages and different groups. Furthermore, the research finds out useful ways to connect with children for involving them in spatial decision.
In this empirical research is noted that collaboration with children contribute in creating a new language of participation. This language is dynamic and allows researchers, designers, educators and decision makers to edit and annotate whenever needed. They can navigate through the process or get use of it as a whole bundle. It potentially can open the participation's dialogue to Albanian public.

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EĞİTİM ORTAMLARININ (YENİDEN) TASARIMI İÇİN BİR İLETİŞİM DİLİ GELİŞTİRİLMESİNDE KULLANIM SONRASI DEĞERLENDİRME VE ÇOCUKLARIN KATILIMI

ÖZET

Bu tezde yer alan araştırma, çocuklara odaklanarak, onların katılım hakkını ve farklı mekanlarda kullanıcı olarak iletebilecekleri deneyimleri ortaya koymaktadır. Bu çalışma, çocukların kullandıkları mekanların tasarımına dâhil edilmelerinin en doğal hakları olduğu düşüncesiyle, mekan tasarımı anlayışını kavrayabilme ve çocuklarla tasarımın başarıya ulaşma yollarını anlamaya yönelik bir düşünce ile başlamıştır. Araştırmacının ilgisi, yetişkinlerin durumu nasıl değiştirebileceği ve çocukların tasarıma katılımını artırmak için neler yapılabileceği üzerinde odaklanmıştır. Çalışma ayrıca, çocukların günün çoğunu geçirdiği mekânlar olan ve insanların yaşamlarını yönlendirmede önemli bir rol oynayan okul binalarına da odaklanmaktadır. Araştırmanın amacı, çocuklar ile yapılı çevre arasındaki ilişkiyi gözlemleyerek ve kullandıkları mekânlar hakkındaki önerilerini tasarıma dâhil ederek "çocuğun tasarıma katılımı" ve "eğitim binalarının tasarımının mimaride bir aksiyon araştırması olarak yeniden kavramsallaştırılmasıdır.

Bu araştırmanın bir amacı da, okul binalarının değerlendirilmesinde öğrencilerin uygunluğunu değerlendirmek, onlardan öğrenmek ve fikirlerinin yansıdığı okul modellerine yönelik tasarımlar üretmektir. Çalışma, çocukların bu tür araştırmaların her adımında yer almaları gerekliğini öne çıkarmakta; ayrıca, çocukları değerlendirme odağından mimari eserlerin üretimine katkıda bulunabilecekleri bir konuma yerleştirilmeleri ile ilgilenmektedir. Dahası, çocukları ve yetişkinleri eşit olarak göz önüne almaktadır. Bu araştırmanın gerçekleştiği yerel bağlamda ve yeni okullara duyulan gereksinimin yüksek olduğu yerlerde, çocuklara saygıya ve onlar için ve onlar tarafından tasarlanan mekânlara öncelik veren modeller yetişkinlerin farkındalığını artırmada yardımcı olacaktır. Araştırmada şu sorular sorulmaktadır: Çağdaş eğitimde fiziksel çevrenin rolü nedir ve Arnavutluk'taki okullarda fiziksel çevrenin etkisi nedir? Çocuklar ile projelendirilen tasarım, mevcut koşulların desteklenmesine kıyasla, öğrenmeye dinamik bir yaklaşımı nasıl destekleyebilir? Çocukların tasarıma katılımı Kullanım Sonrası Değerlendirme (KSD) ile ne kadar ilgilidir? KSD ve katılım ilişkisi çocukların perspektifi ile okul tasarımı araştırmalarını destekleyebilir mi ve bu yönde bir iletişim dili önerebilir mi?

Çalışma boyunca geliştirilen bu ve diğer soruları yanıtlamak için hedefler şöyle sıralanabilir. İlk olarak, çalışmada seçilen yaş grubu için çocuk katılımını etkileyen yöntemleri ve faktörleri inceleyerek, okul tasarımında çocukların rolünü derinleştirmek. Çalışmanın bir amacı da, KSD ile mekan tercihlerini etkileyen katılım arasındaki bağı vurgulayan yöntemleri keşfetmek ve atölye çalışmalarının sonuçlarını analiz etmektir. Bu tür sonuçlar, okul binası tasarımı konusundaki gelişmelere de ışık tutabilecektir.

Eğitim sistemi ve eğitim binaları Arnavutluk'ta gündemin sıcak konularıdır. Bu konu sadece eğitimciler ve çocuklar için değil, aynı zamanda politikacılar, araştırmacılar, tasarımcılar ve ebeveynler için de meydan okuyucudur. Öte yandan, tüm alanlarda hızlı bir şekilde değişim göstermekte olan ülkede bu gibi düzenlemelere, yeni tasarımlar ve değişikliklere acilen ihtiyaç duyulmaktadır.

Bu gerekçelerden yola çıkarak, okul binalarının pedagojik gereksinimleri ne kadar yansıttığını ve çocukların okul binaları ile ilgili kararların bir parçası olduğu örnekler olup olmadığını anlamak amacıyla, Arnavutluk'taki okul binalarının ve okul sistemlerinin geçmişi ile alakalı kısa bir inceleme yapılmıştır. Literatürde tanımlandığı gibi katılım, özerkliğin bir göstergesi olduğu için, Arnavutluk'taki çocuk özerkliğinin hangi düzeyde olduğu incelenmektedir.. Arnavutluk'ta, okul tasarımlarında çocukların rol aldığının belgelendiği bir durum mevcut değildir. Bu nedenle katılım, çocukların rollerini genişleterek dâhil eden bir süreç olarak önem kazanmaktadır. Bu amaca ulaşmak için atılması gereken bazı adımlar vardır. Bu adımlar gereklilik olmanın ötesinde demokrasi ve insan haklarının göstergeleri olan, yetişkinlerin desteğiyle planlanan bir yöntem ve çocuklara gerekli imkânların sunulmasıdır.

Akademisyenler ve araştırmacılar daha önce bahsedilen problemlere çözüm getirmek için farklı katılım modelleri geliştirmişlerdir. Genel olarak, katılım modelleri şematik olarak sunulmaktadır. Bunların arasında merdiven şeması en popülerdir. Merdiven basamakları, her türün olumlu ve olumsuz yönlerini gösterir. Farklı bağlamsal durumlar olmadıkça, seviye ne kadar yüksek olursa katılım da o kadar iyi olur. Seviye modelinin yanı sıra, seviye olarak katılımın devamlılığı fikrini güçlendiren doğrusal modeller vardır. Diğer modeller, ki sayıları hiç de az değildir, bireysel katılım için bazı strüktürler öngörmektedirler. Ancak şimdiye kadar geliştirilen tüm modeller simgecilikten uzak durulmasını önermektedirler. Bu bağlamda, çocuk-yetişkin işbirliği ve diyaloğu çok önem kazanmaktadır.

Öte yandan bu çalışmada KSD, katılımcı bir dil ile uygulanmak üzere ilgiyle kullanılmaktadır. KSD, gelecekteki tasarımlar hakkında bazı temeller oluşturarak tasarımla ilgili geribildirim sağlamakla birlikte farklı evrelerdeki yapı iyileştirmelerini varsayımlara yer bırakmayacak şekilde etkilemektedir. Dahası, eğitim ortamında çocukların mekân tercihlerini ve çocukların binayı nasıl kullandıklarını belirlemektedir.

KSD kendi alanında geliştirilen yöntemlere sahiptir ve bunlar zaman zaman katılımcı tasarımla çakışmaktadır. Yine de, öğrenme ortamlarında çakışmanın ötesinde, yöntemleri bir araya getirmek için önemlidir. Bu şekilde, çocuk-yetişkin ilişkisi, pedagojik sonuçları ve çocuk yetkilendirmesini art arda etkileyen mekânları öğrenmek için verimli sonuçlar doğuracaktır.

Araştırma iki aşamalı olarak düşünülmüştür. Birinci aşama, literatürde yer alan farklı yaşlar ve konulardaki çocuklara uygulanan bazı yöntemler ile okul binaları tasarımı ve değerlendirilmesinde çocuk katılımı ile ilgilenmektedir. İkinci aşama ise, ilk aşamanın sonucunu ele alıp, çocuklar tarafından çocuklar için katılım stratejileri ve yöntemlerini geliştirmeye çalışmaktadır. Birinci ve ikinci aşamalardan elde edilen sonuçlar, okul binası tasarımları ve yenilenmesi ile ilgili perspektif sorunlarını ortaya koymaktadır.

2014 – 2015 yıllarını kapsayan çalışmada, çok yöntemli bir yaklaşım benimsemiştir. Tiran'daki okullara odaklanarak, 10 – 14 yaşlarındaki çocukların tasarıma katılımlarını kapsamaktadır.

Böyle deneysel bir araştırma yaklaşımı, birçok araştırma alanında uygulanabilmektedir. Bunun yansıra metodolojik yaklaşım anketler, diyaloglar, ortak kararlar, çizimler, "eğer ben olsaydım" etkinlikleri ve çalıştaylarla genişletilmiştir. Bu araştırmada, görsel ya da gösterge niteliğinde olan KSD anketleri, çocukların hangi alanlara odaklandığına dair daha fazla veri bulmak amacıyla benimsenmiştir. Katılımın değerlendirme yöntemi olan iç yürüme deneyimi, araştırma egzersiz setini tamamlamaktadır. Araştırmacı ayrıca, duyurular ve hızlı temas araçları olarak sosyal medyayı da denemiştir.

Bunun yanı sıra, anket ve gayri resmî diyaloglar, çocukların katılım sürecine ve okul ortamında çocukların davranışlarını anlamak için değerli bilgiler sunmuştur. Bu araştırmada kullanılan yöntem ve teknikler, çocuk katılımı ile KSD arasında olan iyi ilişkiyi araştırmaktadır. Bu ilişki, farklı katılımcı guruplarını araştırma içerisinde eğitim gören çocuk gruplarını dâhil etmek için kullanılmıştır.

Araştırma, ilk aşamada farklı okul ortamlarında denenmiş, daha sonra yalnızca bir bina üzerinde yoğunlaşmıştır. Tüm atölye çalışmaları ve alıştırmalar ürünlerin kendileri ile birlikte niceliksel sonuçlar veren fotoğraf ve video çekimleri ile belgelenmiştir. Mekânsal deneyimleri ve anlayışları doğrultusunda sağladıkları geribildirim, mekân kullanımına ve iyileştirmesine ipucu vermektedir. Çocukların daha iyi ve nitelikli okul ortamları arayışları, bazı işlevleri ekleyip kaldırarak bile ifade edilmiştir.

Okul binalarının program ve fiziksel görünüşünün yanındaki araştırma süreci bütünde, öğrenme ortamlarının tasarım kavramlarının doğrulanması için çocukların algılarını ortaya koymaya çalışmaktadır. Buna göre, bu çalışmanın bulguları ve sonuçlarında, uygulanan yöntemlerle esneklik, yataylık, kampüs benzeri ortam ve şeffaflık kavramları ortaya çıkmaktadır.

Çizim gibi yöntemlerin, özellikle genç çocuklar için ve çizim yeteneği olanlar için etkili olduğu görülmüştür. Poster sunumu, grup çalışmaları için etkili bir yöntem olduğu ortaya koymuştur. Deneme yazımı yoluyla çocuklar, okul binalarının estetik algıları ve soyut yönlerini tanımlarlar. Burada soyut kavramı ile, çocukların duygu, duyu ve diğer deneyimleri kastedilmektedir. Görsel anket yaşla ilişkili olmadığını ortaya koymaktadır. Bu yöntem çocukların mekân algısını etkiler ve çocuk sözcüğünü zenginleştirir. Ayrıca, çocukların mekân algısını arttırma ve nitel mekânları anlama etkisi üzerinde de tesirli olmuştur.

Walkthrough etkili olmuştur, çünkü herkes görüşlerini kolayca ve kelimelerle dile getirebilmiştir. Bu metot çok değerli olmuştur, çünkü diğer atölye çalışmaları ile birlikte çocuklar tasarım becerilerini aşamalı olarak genişletmişlerdir. Sona doğru fiziksel çevreyi değerlendirebilmiş, mimari planları okuyabilmiş ve olası gelişmeleri önerebilmişlerdir. Çocuklar süreci yakın çevreye farklı şekillerde bakma fırsatı olarak değerlendirmişlerdir.

Araştırmanın etkisi açısından diğer bir nokta ise, onun bir bütün olarak ne gibi bir katkı sağladığıdır. Tüm atölye çalışmaları, yapılan tüm egzersizler ve uygulanan tüm yöntemler, diğer bazı araştırmalarda biliniyor ve test edilmiş olsa da, çocukların çalışma koşulları hakkında daha fazla bilgi edinmeye yardımcı olmuştur. Sevdikleri ve sevmedikleri, çalışmayı tercih ettikleri yerler, zaman geçirmek ve sosyalleşmek hakkında ipucu vermektedirler. Araştırma, azami sonuç alınması için en iyi zaman ve yeri açığa çıkarmaktadır. Araştırmacının müdahalesi ve farklı yaş ve farklı gruplarla başa çıkma yolları hakkında bilgi vermektedir. Araştırma, ayrıca çocukların mekânsal karar alma süreçlerine dâhil olmaları için faydalı yollar bulmaktadır.

Bu deneysel araştırmada, çocuklarla yapılan işbirliğinin yeni bir katılım dili oluşturulmasına katkı sağladığı kaydedilmiştir. Bu dil dinamiktir ve ihtiyaç durumunda araştırmacılara, tasarımcılara, eğitimcilere ve karar vericilere bunları düzenleme ve açıklama yapmaya olanak vermektedir. Süreç boyunca farklı olarak veya bir paket olarak kullanabilirler. Potansiyel olarak katılım diyalogunu Arnavut kamuoyuna açabilir.

1. INTRODUCTION

Educational environment projects show rare involvement of some form of participation from children. Participating in design means enabling users to be fellows of the team that takes decisions about their environments. Thereof, this thesis aims to establish ways of considering the children participation in school design. Many studies specify the effect that physical learning environments have on the learning outcomes and on pupils' life quality. Enhancing the children's life quality in the educational environments is complex and dynamic, but an essential component of it is the physical environment's quality. Early examples of school buildings may have problems in supporting good and qualitative environment to serve learning. Nevertheless, designers, architects, teaching staff, school policy makers, developers of educational systems and school programs or any other adult who decides about such environments may identify a series of problems that school build environments have. In this context, in order to gain a whole understanding of the way the buildings work, it is vital to include children and their perspective in this panel of professionals.

The importance of including children in school design and school building evaluation, together with research methods adopted for each of them, are stressed throughout this thesis with the aim of contributing to reconsidering design criteria in the present and future school buildings in the country.

In Albania, similar to many other countries, it is observed that school design projects commonly involve no children's view in design. Architects try to obey rules settled by the government and seek to give solutions based on school building standards. They less often take feedbacks from children as chief users of the school environments. What can be the possible ways and levels the children can be asked or invited to participate, is an issue that is related to aim, context, children backgrounds, educational system, government policies and too many other factors. Thus, within the wide range of the factors that influence the accomplishment of participation, focusing on children participation in designing of educational buildings requires a

well understanding in many disciplines. At the same time, it is characterized by the limitations. It means that, since the scope of the research is in finding a participatory language with the possibility of involving evaluation as a structure of this language, some factors that influence the educational space production are thought to be studied in the future. Specifically, the involvement of other users than children or the postpone of considering educational program are beyond the scope of the research and are issued to be developed in further studies.

Hence, within this defined extent, examples of involvement may be obtained in different forms, such as brainstorming, proposing spaces and amelioration of spaces through different mediums, rating preferences in a questionnaire, etc. Within this study, the researcher provides an overview of the participatory and post occupancy evaluation theories and methods. She gives an overview of the context to understand the problems and the research initial point, an overview of the aim and the scope of the research with the possible implementation of the findings.

1.1 Research Context: From Children Participation to Children Experience

The research presented in this thesis brings to a focus children, their right to participate and the experience they can transmit as users of different spaces. The study started with the urge to comprehend children's understanding of space design and understanding the ways of accomplishing design with children because incorporating children in the design of spaces that they use is their natural right. The interest of the researcher relates to how adults may change these children-dismissing situations and how ways for enhancing children participation can be designed. The research pursues with a focus on school buildings as the spaces where children spend most of the daytime. Moreover, school buildings are institutions that play a crucial role in drawing the lives of the people. In Albania, such settings are in urgent need for change or for new design because the country is experiencing rapid development (in all fields), which drives new challenges. Educational system and educational buildings are a hot topic and are more than stimulating not only for educators and for children, who are directly connected to them, but for politicians, researchers, designers and for parents.

In 1990, Albania's change in the regime was accompanied by a change in the community itself. This change is present in different aspects of the community life,

among which educational system has a crucial place. It has influenced the educational system in two directions. The change was followed firstly, by a radical change in curricula and, secondly, by the liberalization of private educational institutions. There is a wide concern that the consequences have influenced the educational quality. Parents complain that children do not gain the same knowledge they used to do when they were pupils themselves. One of the most common complains lies in the school building facilities, its environmental change and the space insufficiency. There are a number of projects and workshops organized by different NGOs where participants, being administrators, teachers, parents and pupils, all together raise the problems that they meet in schools (Sorom, 2010). The education process has also changed. From a 4+4+4 system, now pupils are following a 5+4+3 curricula; in the meantime, discussions are being held to change it once more. Curricula have changed a lot, which shows a multiplicity in the methods of teaching and learning. However, within this contextual mobility, the buildings are the same. There is little or no change at all in the school buildings, except some new constructed buildings within the same site as the existing ones. Yet, in some cases, the existing structures were not designed as school buildings but they have been adopted as such. However, as Sandra Horne Martin states: "a variety of learning methods demands a variety of spaces" (Martin, 2005, 103). Thus reconsidering the learning spaces is compulsory. Schools are denser and the need for other school buildings is more than evident and crucial in children's academic development because "high density in the schools affects learning" (Martin, p.99). Parallel to such a situation as crowded school buildings, there is a great problem with maintaining. Hence, this study is to reconceptualise "child's participation in design" and "design of educational buildings" as a form of action research in architecture, by observing the relation between the children and the built environment and by involving them in proposing spaces of their own. It is the responsibility of the adults to help raising responsible adults. First, the research tries to observe the relation that exists between school buildings and participatory design with the children involvement. In the Albanian case, regarding the former, there is not much information on the quality of the school buildings, while as for the latter, participation as an act of design increasing the learning and responsibility in children is an untouchable field.Likewise mentioned earlier, Albania is a developing country, which brings the need for school buildings to be reconstructed or new construction, and as Henry

Sanoff (1994) states the building of a school with the deserved responsibility requires not only an experienced school architect. It is a motive why participation has a significant position. The purpose of this research is to involve children in evaluation of their own schools in order to access the appropriateness of the buildings and to learn from them. The premise of the thesis is that children should be involved in every step of this research. The research engages in a shift of focus from the evaluation of children involvement to the contribution of products to architectural works. It emphasizes the interchangeable and overlapping process of participation and Post Occupancy Evaluations. It treats children equal to the grown-ups. In Albania, UNICEF has applied similar systems to make children's lives easier and to make their voices heard. Yet however, studies on children participation in school design seem to be generally lacking. The research presented in here is based on this unique concern of the themes of school design. The study presents results from POE conducted in middle schools (11-14 years old children). The research objects are all located in Tirana. Findings and data collected from this research are planned to help in constructing a participatory model for school design or for renovation of school spaces. Who else other than children knows more about such environments?

Therefore, the research is thought in two phases. The first phase takes care of children participation in school building design and evaluation with some methods present in the literature applied to children of different ages and children of different school subjects. The second phase handles the results of the first phase and tries to develop strategies and methodologies of participation for children with children. The findings from phase one and two offer perspective issues about the school building designs and upgrading. In the present, all cities in Albania have emergency in school design and school building renovations. However, Tirana has the possibility to intervene; the development and change starts from here. Schooling is an issue which is in the centre of attention for the government, with all its complexity starting from day-care objects to high school buildings.

1.2 The Contribution

This study builds on the theoretical and practical work, which has explored children's rights and their experiences in decision making and participation methods. Additionally, it supports exploring the learning environments together with children

and from their perspectives. This study makes a valuable contribution to the research literature in that the children included in the study will help conducting both phases of the research; POE and workshops designed together. Theories of children participation and POE presented here are ways of contributing to understanding and deepening ways of dealing with children in an interactive design process. Another contribution is initiating empirical studies of this nature in the design of school buildings in Tirana, unlike the majority of studies in which children are part of already planned participation activities. In here, children at once reflect on the environment, plan and look forward for the spaces they need. The study thus brings to a focus some issues and spatial problems arising for and raised by children. The results provide information and data to designers, teachers and policy makers so that they strengthen the significance that children and children's rights should have.

As a whole, theoretical and empirical enquiry, connect tightly in a continuous mutual relationship for designing a positive language to take forward the participatory design process as both creative and evaluative.

1.3 Purpose and Scope of the Thesis

This study is to re-conceptualize "child's participation in design" and "design of educational buildings" as a form of action research in architecture, by exploring children-educational environment relationship and by involving them in evaluating and proposing spaces of their own. First, the research attempts to see this tie in the existing educational and school buildings in Albania. It also engages in exploring if there are any clues that guide to children engagement in the design of the school buildings and whether there are traces of spaces reflection to curricula needs.

The purpose of this research is to involve children in an evaluation of their own schools in order to assess the appropriateness of the buildings and to learn from them in order to produce, design and develop together a research approach where children's ideas are reflected. The premise of the thesis is that children should be involved in every step of this research. This engages in a shift of focus from the evaluation of children involvement to the contribution of production to architectural works. It treats children equal to the grown-ups. The study gives rise to construction of a participating language for school buildings, which will be proposed in alliance with the children.

In the local context, in which this research takes place, the need for new schools is important and models that give priority to children respect and spaces for them and by them will help in raising the awareness of the adults. This study raises and deals with various questions such as what is the role of the physical environment in contemporary schooling and how present is this physical environment effect in schools in Albania? How can design projected with children support a dynamic approach to learning compared to the present conditions? How does children participation in design relate to POE? Do POE and participation relation support research in engaging children perspectives in school design and propose a language toward that?

To give answer to all these and other questions that developed through the study, a number of objectives can be listed. An example is deepening an understanding of children's role in school design by studying the methods and the factors that influence the children participation for the selected group of study. Moreover, another objective of the study is the exploration of the methods that could emphasise the bond POE and participation have, which in total influences the space preferences. It also presents an analysis of results in the workshops. Such results and findings would give light to other developments in the school building design considerations.

1.4 Methodology of Research

The research of this thesis, undertaken in 2014-1015, employed a multi-method approach. Such an empirical study approach finds application in several research fields. For example, J. Ramon Gil-Garcia and Theresa A. Pardo (2006), researchers on the computer and technology field, argued that "multiple methods" help in "studying complex social phenomena". Participatory methods assist in solving such kinds of problems since they are producers of pure knowledge that might have been forgotten or neglected and "provide more nuanced understanding of complex social phenomena" (Kesby, 2000). Here, the methodology for data collection varies from Henry Sanoff's participatory methods to David Driskell's action researches. Engagement in multiple activities varies from surveys, questionnaires, dialogues and co-decision to drawings, "if I were" activities and workshops. Being their visual or indicative, POE questionnaires have been adopted in this research with the aim of finding out more data on what kind of spaces the children focus and on recording

their view about the school buildings. As an evaluative and creative method of participation, a walk through experience concludes the set of the research exercises. The researcher also tried to make use of social networks as a means of announcement and fast communication. (App A) It had a great popularity but not a significant participation through it.

This study is confined in 11 to 14-year-old children (the age of "visual realism" where schematic development is developed according to Piaget & Inhelder (1956)) participation in design by focusing on schools in Tirana with a previous investigation on existing conditions. The initial survey of national literature reveals no specific study of children's participation in the design process. Therefore, this research encouraged me to find more information about the school buildings and school system in Albania based on an archival research.

The beginnings of this study constitute in the literature review in the national context and in collecting architectural drawings of the different school buildings that refer to different government development periods.

At the international level, the research revised existing researches on participatory design including POE. It examines models of participation and the levels that the children might be involved in school design. Additionally, literature investigates advantages and limitations of participatory design and POE to continue with the examination of the respective methods. Shared methods are questioned and evaluated for reaching the goal of the research.

Additionally, surveys and informal dialogue helped in providing valuable insight into children participation process and into understanding the children behaviour in the school settings. Methods and techniques in this research explore children participation in a good relation to Post Occupancy Evaluation, as tools to engage diverse groups of participants in an evaluation toward a group of children that is being trained through the research.

All the workshop outcomes are documented by photo and video recordings to later analyse for providing quantitative and quantitative results. Findings and results are treated as instruments to gain methodological approaches to children participation. Stated clearly, this study is a systematic inquiry into the nature of children participation by employing creative and evaluative approaches. Description of

behaviours, interpretations of different participation tools and mediums, together with the consideration of participants' views, construct an objective research approach. Reflection on methods, participants' age and background, time and venue and designing or re-designing issues support the particularity and generalizability of the research approach.

1.5 The Thesis Structure

Five chapters and an introduction compose this study where different stages of the research are represented.

Chapter one deals with introductions. It develops the research problem and brings it in the inquiry context. It highlights the significance of the thesis together with the aim and the objectives. It clearly states the methodology and the methods used.

Chapter two gives an overall view of the school system and school buildings in Albania. It starts with the study of the first buildings used as schools in the country and ends with the current situation of schools and school buildings. In between, the development process of the educational buildings with their own specifications are explained.

Chapter three deals with literature review. It starts with the theoretical framework and the possibilities of methods of both POE and children participation. Additionally, it describes the methods and the tools needed for the case study to be carried out. By the end of the chapter, the theoretical contribution that the thesis intends is established.

Chapter four covers in details research methods for each workshop. It describes the strategy and explains each case with the aims, ways, limitations and benefits. Investigation of two sets of workshops is explained comparatively through the chapter. Findings and results for each case are presented and discussed.

Chapter five presents a multilevel analysis of the whole research. Analysis and the results are framed within the research aim and objectives. It explores different factors about children participation in school design and it emphasises the significance of POE as a key aspect of children participation in school design.

Chapter six concludes the research by presenting the contribution of all the collected data and knowledge by stressing once more the potentials of POE in addressing the gaps in participatory design. This final stage is about findings, which gives rise to new questions to be asked. Recommendations for future research and practices end the chapter.

2. HISTORICAL REVIEW OF THE ALBANIAN SCHOOL AND SCHOOL SYSTEM

This chapter presents a history of educational buildings that follow the three main periods of general Albanian history: pre-socialist, socialist and post socialist period. The periods are explained with a focus on the curricula as the main factor in shaping the physical environments of school buildings. Other characteristics that give or do not give shape to the outline of educational buildings are to be expressed in each of the sections of the chapter that deals with the topic. Though it cannot be talked about school architecture in Albania, especially in the primary level, an analysis of the school buildings can be done. According to Henry Barnard as cited by McClintock (1970), architecture is more related to pedagogy and human values; building, on the other hand, is about function and economic efficiency. Within this frame, schools in Albania for each individual period show some developing characteristics as buildings to be considered as a possible alternative of turning them to be architecture.

2.1 Pre-socialist Period of the Schools in Albania

The history of schooling and educational buildings in Albania dates back in 16-17th century, though the one opened in Korca city by the end of the 19th century is widely acknowledged. (Dedaj, 2015). Albania, as a European country, is not different from the tradition of the Western countries schools. The foundation of the Western school system lies in the cathedral schools (Walden, 2015, p. 51) and there is an Albanian researcher, Ndue Dedaj (ibid), who states that it was the Catholic Church, which first opened the doors for the Albanian schools. Vela, Kurbin, Pllane and Bilisht, Orosh, Himar and Stubla's schools are among the first school buildings in Albania. Yet more, Isak Ahmeti (2004) illustrates Stubla School (a church) (Figure 2.1) as the first school in Albania.

Vela School, as one of the first schools in Albania has been described as such in Edwin Jasques (1995) book Albanians: An Ethnic History from Prehistoric Times to the Present. Jacques expresses that Vela and Kurbin schools are the first documented

schools in Albania that date to the year 1632. In the Middle Age, education system spread into two fields says Dedaj (2015) by quoting Moikom Zeqo; it is the theological content of the books and the lectures, accompanied by linguistics, philosophy and free fine arts.

Figure 2.1 : First school in Albania (Ahmeti, 2004).

The primary goal of these schools, which were part of the churches, was the theological education with a major concern on reading. Himara's school, for example, was opened by basilean missionaries of Italy (Dedaj, 2015), but aiming to teach reading and writing in Albanian the books were translated into Albanian language.

Beside the church schools, Dhimiter Shuteriqi quoted by Dedaj (ibid) mentioned that Stubla's school, today's Kosova, had a college-like environment similar to western countries. Until that time, education content was mainly religious and there were these religious institutes that offered children college-like spaces for meeting all their needs.

By the end of the 19th century, as a result of Albanian National Awakening in 1887 in Korca city, the first Albania School was officially opened. It is from that time that Albania has a national, civilian and secular traditional educational system. The others did not survive the time due to their difficult context. They were generally situated in remote mountains.

The school in Korca started teaching in Albanian language with 35 children. It opened education for all levels of society. Such a decision ranked it as a school with a democratic educational profile. Teaching based on writing, reading and grammar of

Albanian language. Besides them, there were classes on history, geography, arithmetic, natural sciences and physical education. The building was composed of five classrooms. One class was functioning as a preparatory school while the others gave regular lessons. The school of Korca is the first building conceptualized as a school. For teaching in Albanian language was forbidden by Ottomans, before 1887 schools were held at clergies' houses or churches. At the same time, such a situation had its influences from the western countries. Ladi Shahini (2015) claims that unlike with other regional countries, French bourgeois revolution had a crucial role in emancipating and developing Albanian Society. According to his study, Albania had a wide western countries influence in the education system. France, Austria, Italy, Hungary and Greece are countries that influenced different Albanian contexts. In this manner, Albanian education system was characterized by a plurality of cultures which Shahini (ibid.) calls "mosaic". In different places in Albania it was possible to find several educational systems. This mosaic continued up to 1920 when scholars felt the urgent need for a unified system. Unification in the education system was the main aim in the Lushnja Congress of August 1920. However, despite the struggle of the personalities of the time, there were no changes until the beginning of World War II (Duro, 2012). Up to the end of 1927/1928 academic year, primary school was a 6 years' program. Since that year, it changed to 5 years' system education. Still, academicians state that in rural areas where there was lack of teaching staff, primary school was even 4 years (Dedja at al., 2003). An interesting fact of the time is the division of the school program by gender. Female program had slight changes compared to the male program. The former had more hours related to the home economy, the latter more hours on handicrafts (Ibid, 2003, p. 459). Several years had to pass before the ministry of education interfered. In1933 it undertook a great school reform. The new school became "national, governmental, and secular"(Shahini, 2005). Organizational scheme was 5+4+4 years of education for urban areas and four years' elementary school for rural areas. In terms of construction of the new school buildings, during the 1925-1939 period are documented an average of about 10 school buildings per year (Duro, 2012). Besides the state school buildings, in this period there are seen private elementary schools whose foundations laid on religion, with secure financial supports and with a much better infrastructure (Dedja, at al., 2003, p. 465). The reform of the year 1933 closed all the private education assets in Albania (Dedja, p. 444). Again, the reform of year 1933 entered the health service in

the schools. The bad economic condition made impossible reflection of all these reforms in the physical organization of the spaces of the educational buildings. Another reason for not having spaces to accommodate such subjects is the adaptation of certain buildings as schools.

There are little or no well-documented cases of how the school buildings of that period look like. An example of documented early urban school buildings is "Vorri I Bamit" school. (Figure 2.2, left) Its writings over the drawing sheets speak of Italian architecture. In the few drawings available and exactly from the roof plan there can be identified the space divisions. Central entrance, single corridor, four classrooms and some other spaces at the corners of the building are what is perceived. It is a small environment with small classrooms. There is no evidence of the functions of the spaces, but based on the characteristics of the school buildings of the time, besides classrooms and toilets, the buildings may house a sleeping room and a small kitchenette for a teacher or pupil that comes from rural environment.

Meanwhile, in the rural environments there were no school buildings or buildings with one classroom similar to this school building in a remote mountain region. (Figure 2.2)

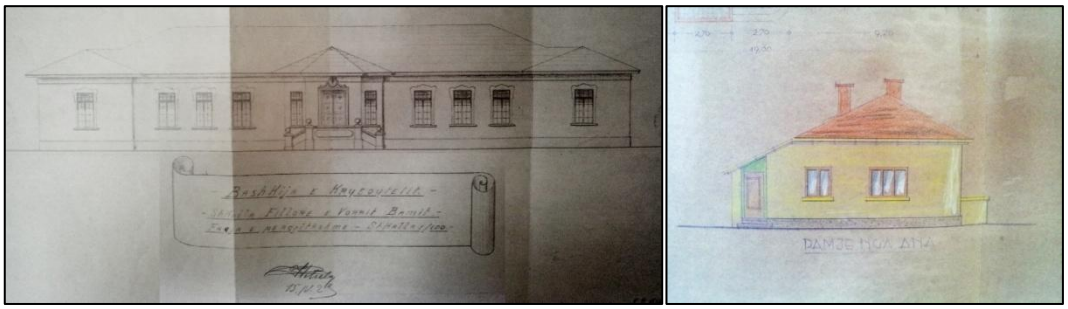

Figure 2.2 : Elementary school of Vorri Bamit of the 1929 year (left); one classroom village school buildings (right) (State Technical Archive).

2.2 Educational Buildings of the Socialist Period

Socialist period brought an increase in the construction field together with a totally controlled economic, cultural and social state. Production was organized in cooperatives and new cities generated with a high need for workers and build environment as well.

The dominance of the state is present in designing and construction of buildings as well as in all other fields. All the schools were public. Albanian socialist regime

brought the school under a strict control, where communist ideology was propagandized. No one could dare not to obey the rules and regulations. The main motto of the education should be based on a "Marxist Leninist Theory".

Hamit Beqja, an Albanian academician, in a research about the reorganization of the school in the communist period categorizes the educational system of the Communist Albania into five cycles (Beqja, 1964).

The first cycle starts directly by the end of World War II to the 1950s.

By the end of the war, (1945) Albania faced a huge distraction in all aspects of life. The extensive war damages were present even in educational infrastructure that existed until that time. At this time, an urgent need for public school buildings and for an established, structured education system arose. Thus, an immediate intervention of the government and the population itself was crucial. (Duro, 2013, p.15). Many factors influenced the resurrection of Albania and Albanian educational system, but the political system is ranked as the most dominant. After the war, the state decided setting communism system for ruling the country. This system tackled several reforms in education in order to improve schooling. For example, the educational reform of the year 1946 is a turning point for schools in Albania. It made primary school mandatory for all. In three years, this legislation brought an increase of 73% in the construction of primary school buildings and 110% in the number of pupils. (Elmasllari, 2014) Moreover, educational reform decided on construction of night schools, cultural houses, reading houses, clubs, theatres, etc (Koliqi, 2002, p.439).

In this cycle, school buildings began to be designed by Albanian architects. They knew the local situation and the education system. The new school buildings were taking in consideration the function of the spaces and the school curricula.

School buildings were designed as "type". The standardized schemas characterize educational buildings of all the communist period. It demonstrates the condition of the government and the control of the state. For instance, all the educational buildings designs were controlled by Ministry of Education.

The example below (Figure 2.3) is a model of a standardized school building project for 7-year cycle of education.

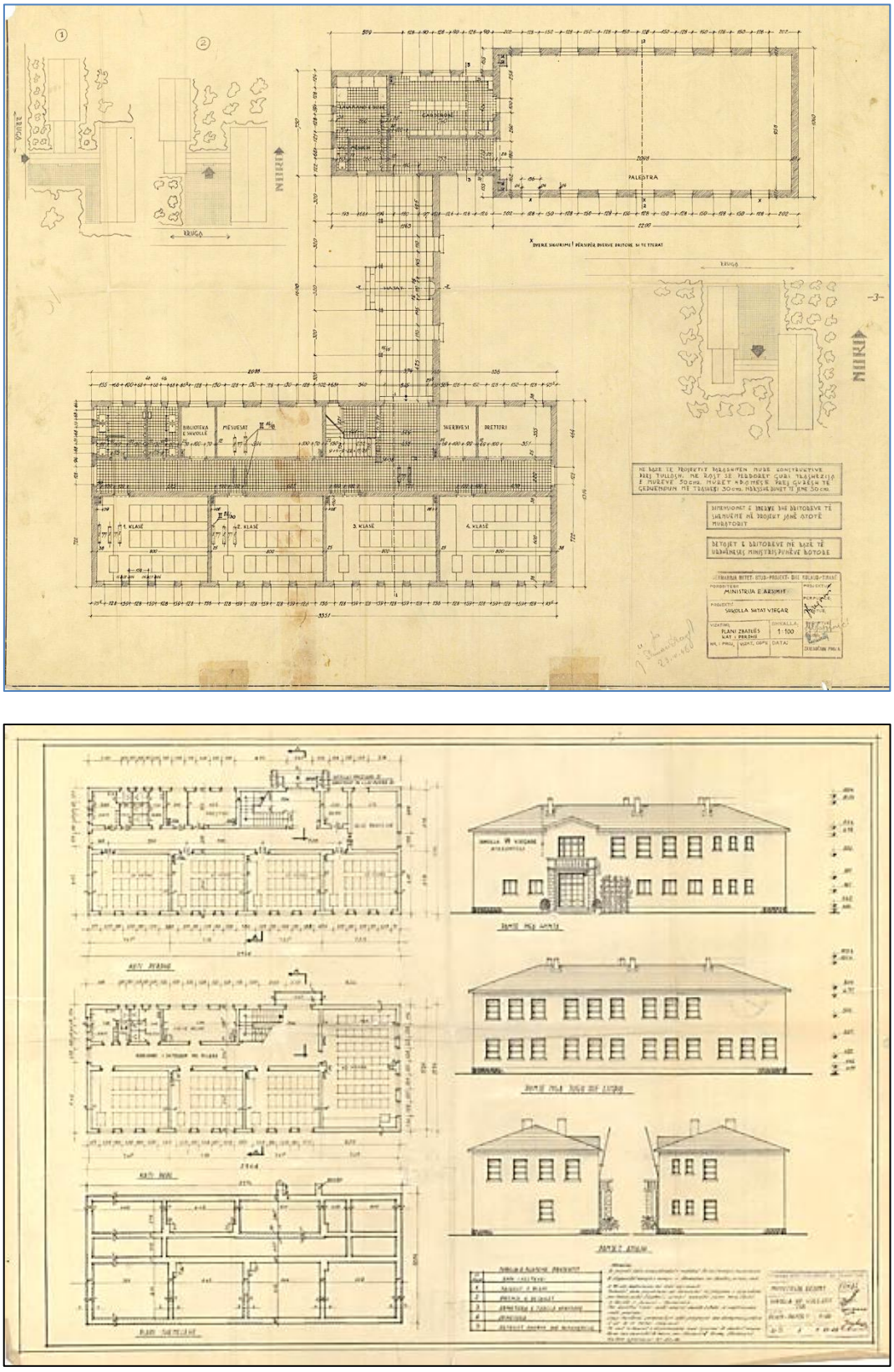

Figure 2.3 : An example of standardized school building designs (State Technical Archive).

There is not too much indication about the outdoor spaces of the building, but the interior provides only classrooms, space for teacher and directors, storage and restrooms.

On the other side, the drawings of the projects present explanation in case the building is applied in brick or in stone. In this model of the year 1948, the design team provided more education opportunities for children. A closed gym with its complimentary spaces, drawing and work cabinets together with a library was a contemporary layout. Such a design allowed the creation of the clubs of children. Common spaces dominate the classrooms, but they were also conceptualized as educational spaces. As for subjects taught at that time, besides the basic courses such as maths, chemistry, biology, physics, literature for which the designers had thought proper spaces, there were subjects such as handicraft, where special laboratories were almost in all city school buildings. Furthermore, school buildings included a club's room for extracurricular activities, where generally the party meetings were organized. Such rooms were widely used by the community.

Another example of model standard school buildings that dates back to 1949 is this two-storey brick building proposing standard means that all constructions should be placed in flat site (Studio, 1949). This example is composed of eight classrooms with a maximum capacity of 248 children. Designed by the team of the state design studio, this model provided more education opportunities for children. It offered a closed gym with its complimentary spaces. It presented drawing and working cabinets together with a library for a better educational achievement.

To accomplish the need of the government and the country for a cultured and educated population and to stick the country to the ideology of the politics of the time, students were sent to Soviet Universities to study for being prepared as teachers of the future. This gave clue to the formation of the basement of the school system in socialist years.

The *second step* belongs to 1950-1955 years. During these years is implemented the decision of obligatory four-year elementary school. Within these five years of the new reform, the mandatory school years were extended to seven (Koliqi, p.441).

The system of the extended compulsory education brought needs in the spaces of school buildings be these classrooms or other spaces for other subjects added to the program. The example below (Figure 2.4) is a model school with two classrooms for

a maximum number of 80 children. A design team led by Anton Lufi, an architect of Austrian School, designed the building, which was conceptualized as an educational complex. More than the building, itself it is seen that importance was given to outdoor activities (Figure 2.4).

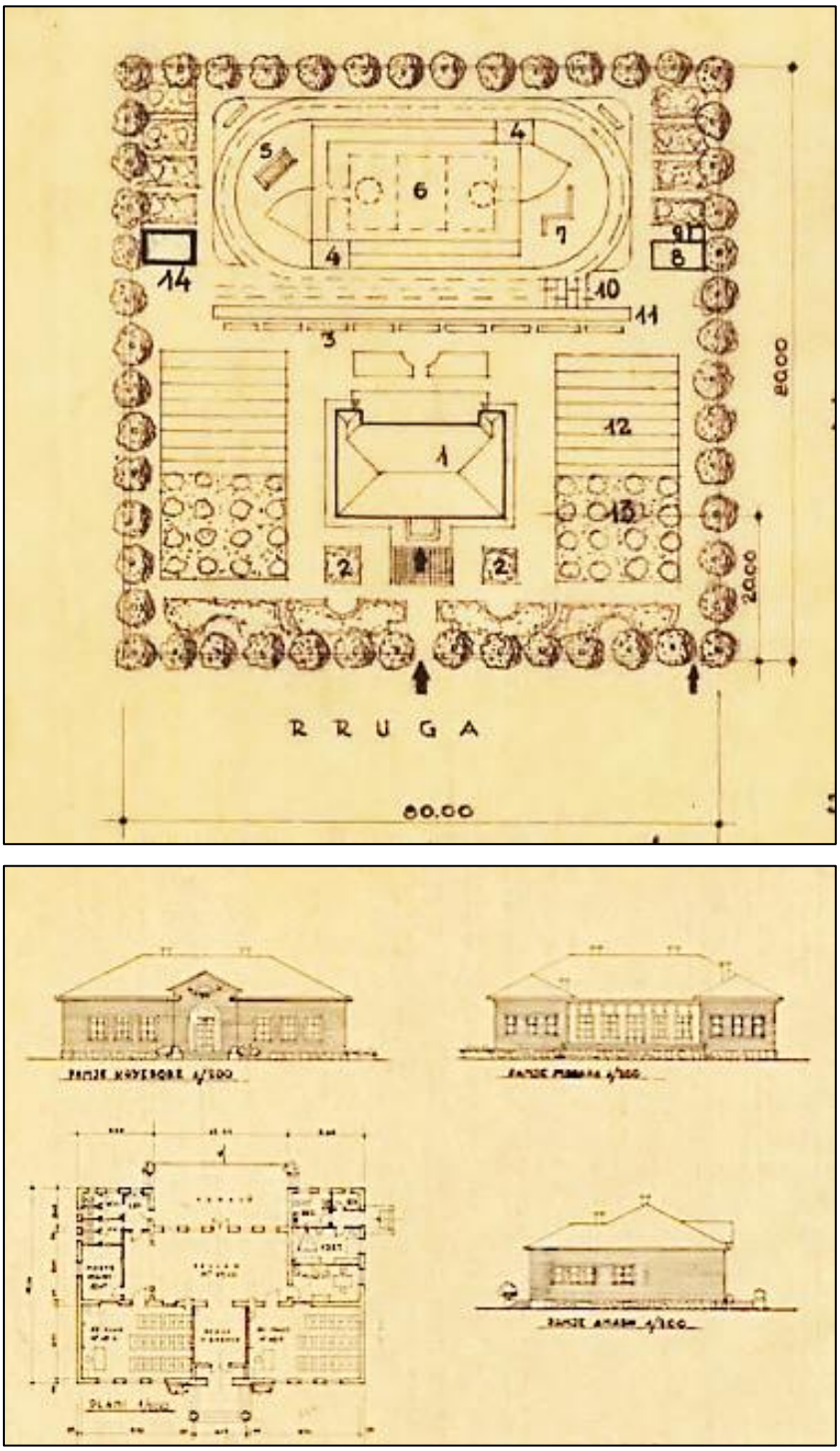

Figure 2.4 : Model of a school with two classrooms. Outdoor reflects the curricula of the time (State Technical Archive).

Outdoor spaces support a variety of learning activities. It provides recreational spaces, running lane, jumping and polygon pits. In addition, it offers spaces for practicing agriculture. In Figure 2.4, labels number 12 &13 in the legend are dedicated to vegetable planting, while nr.14 is a niche for animals and bird species.

On the other hand, in the indoor can be seen two classrooms with regular rectangular shapes of about 50 m^2 for 40 children each. It has an entrance foyer with storage and toilets on one side and teachers' room and sleeping room on the other side. The sleeping area has an outer private entrance and is offered to teachers that come from other cities. It is composed of a sleeping room, a kitchenette and a bathroom. This building was a model for other buildings with the same capacity.

The *third step* covers a decade from 1956 to 1965. In between these years, importance was given to ideological formation of the generations. Curricula changes go parallel to ideologies of the state. A new subject called "work course" was added. (Koliqi, p.443). There the children used to learn how to deal with different materials such as wood metal; paper; sewing; how to deal in agriculture etc. This new course brought the need for extra spaces in the school buildings and practice in terrain.

The designed projects left room to accommodate these new subjects' requirements in the typologies that were to be designed from that moment. Ateliers for wood and metal have their own rooms. They are conceptualized in rectangular, similar to the regular classrooms.

Laboratories of geography, history, foreign language physics and separate spaces for drawing and handcrafts were all innovation for the time. Although for the exterior there is no clue, the interior is rich. It included a library with a separate reading room, an interior gym, a cafeteria and even a small space for club activities.

All learning spaces were naturally lit. The first Albanian woman architect, Valentina Pistoli, designed the model below. This symmetrical building of the year 1964 is used by both educational cycles; elementary school and secondary school. In this context such a model is called 11 years' program school buildings. Actually, the model in Figure 2.5 is a modified model of the original one. As far as it is noticed from the drawing's notes, models are modifiable according to the investor's requirements. For instance, in this case the intervention has been made on the addition of chimneys for each classroom. Based on the original version, in case there was need for extra buildings in the school environment, additional buildings could be

added. The possible variations were also proposed by the planning and design office (Figure 2.6).

The *fourth step* dealt with a more extensive reform compared to the first one of the year 1946. The year 1965 constitutes a significant milestone for the organization of the educational system by extending mandatory schooling from 7 years to 8 years.

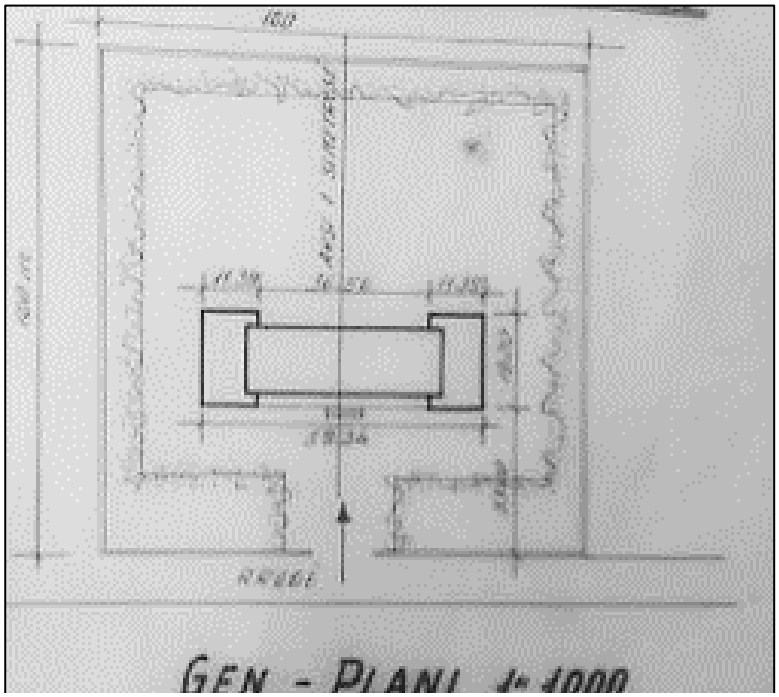

Figure 2.5 : A standardized plan for primary school of 1964.

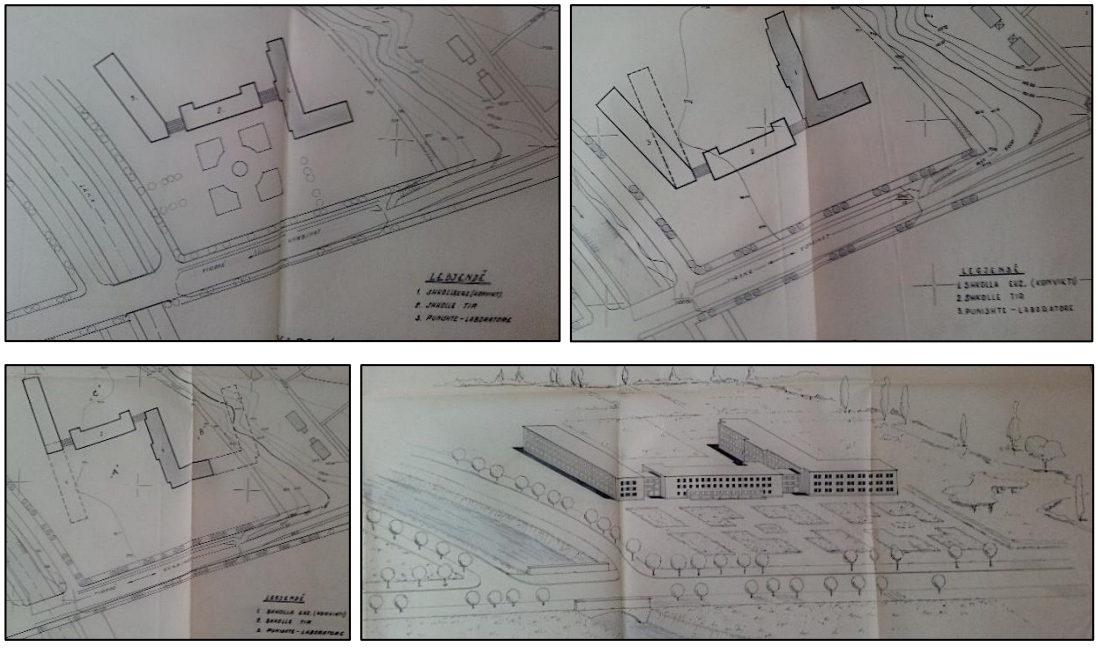

Figure 2.6 : Possible variations proposed by architects in case the standardized model is reapplied (State Technical Archive).

Based on the document of the Ministry of Education of the same year, the first 8 years of the school will be a mixture of professional and basic education. According to academicians and the politicians of the time, since the school system was established, it was the turn to fight bourgeois ideologies and adjust Marxist Leninist philosophy, which laid on production, work-physical education and military education. Gender equality and woman emancipation were also an undertaken amendment of the time. (Koliqi, 2002). Therefore, these years mark a boom in school building constructions. The following table (Table1.1) gives clue about the increase in the number of educational buildings within one year.

Table 1.1 : School number constructed from 1964-1966. (Document of Ministry of Education and Culture of the year 1966).

Nr	School category	1964-1965	1965-1966	difference	Percentage of increase
1	Kindergarten	243	213	-30	
2	Primary school	2523	2555	+32	1.1
3	High school				4.4
	a)first cycle	736	769	+33	
	b)second cycle	73	80	+7	
4	Professional high school	20	20		9.5
5	Pedagogical high school	11	8		
6	Pedagogical university	2	2		
7	University	6	6		

Figure 2.7 is a school building constructed in 1967. This new structure for the time reflects the education system and model, which is chosen by the Ministry of Education and Culture. It has laboratories for wood, metal, electromontage and techno-mechanical work. According to a Ministry of Education and Culture regulation of year 1965, after finishing 8 years of their education children should have enough knowledge to work as grown up individuals in different fields of work.

10 years later, the regulation of1974 shows an increase in the number of classrooms. According to the new directives, the number of classrooms should be 16 to 24 with a maximum capacity of 40 children per classroom. School buildings can be three-storeyed, but urban school buildings sometimes may be four-storeyed and the rural school buildings even single-storeyed. All the labs are to be equipped with chimneys and natural light in the classrooms is obligatory.

Positioning of a gym was obligatory for the urban school buildings. Application in rural educational buildings was forecasted in case economic conditions were contented. (Constuction, 1974)

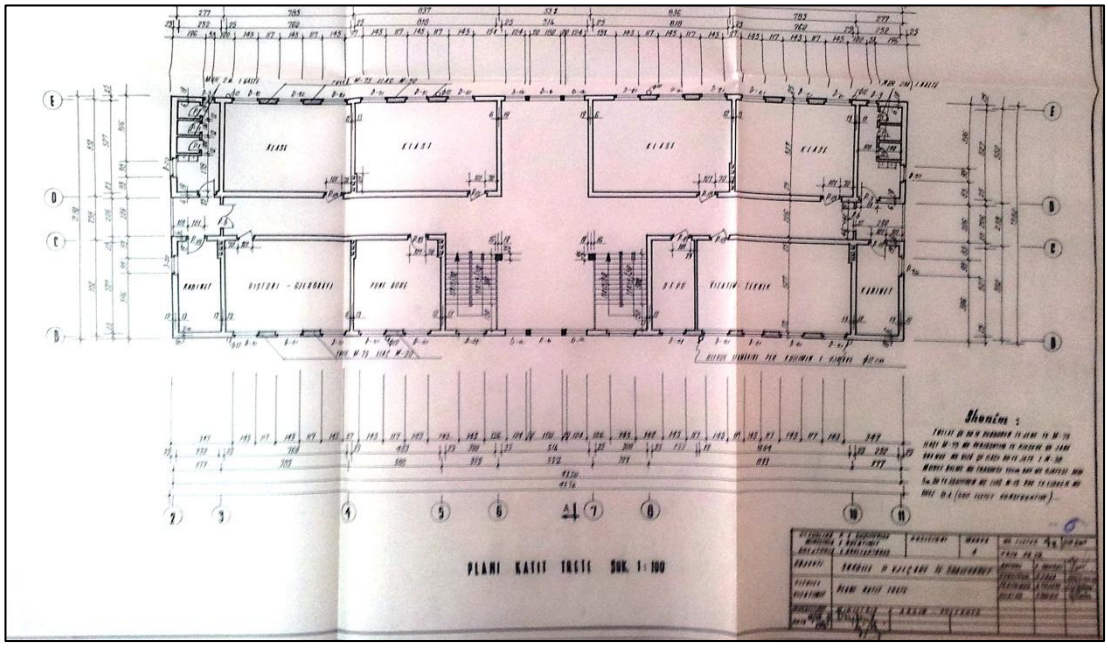

Figure 2.7 : A standard model of school buildings of 1967 (State Technical Archive).

On the other hand, according to the minutes of the Technical Council of Construction, rural school buildings of the time had nine types of eight-year cycle designs, single, two or three-storeyed. These typologies are symmetrical, asymmetrical and two-storeyed buildings. The figure below (Figure 2.8) shows the proposed and eligible schemas. All of them have been designed and labelled based on the number of classrooms and floors. For example, the first one is a single-storeyed building composed of eight classrooms and the 9th one is three-storeyed with 12 classrooms. The classrooms generally had a maximum capacity of 40 students.

Meanwhile, the school buildings of large cities after passing to four-storeyed buildings are proposed into four variations. Two of these schemas are symmetrical three- and four-storeyed and two are asymmetrical three- and four-storeyed as well (Construction, 1964).

In the report of the year 1969, the Ministry of Education and Culture was of the opinion that they had not constructed the needed diversity of schools in the secondary schools. They were of the opinion that the school should satisfy the needs of agricultural, industrial and constructional production.

School is conceptualized as a superstructure in a continuous dialectical development in contiguous to "revolutionary life" planned for Albanians.

Priority is given to theory and practice. The Practice was considered as a method of education with a methodology of voluntary/obligatory work.

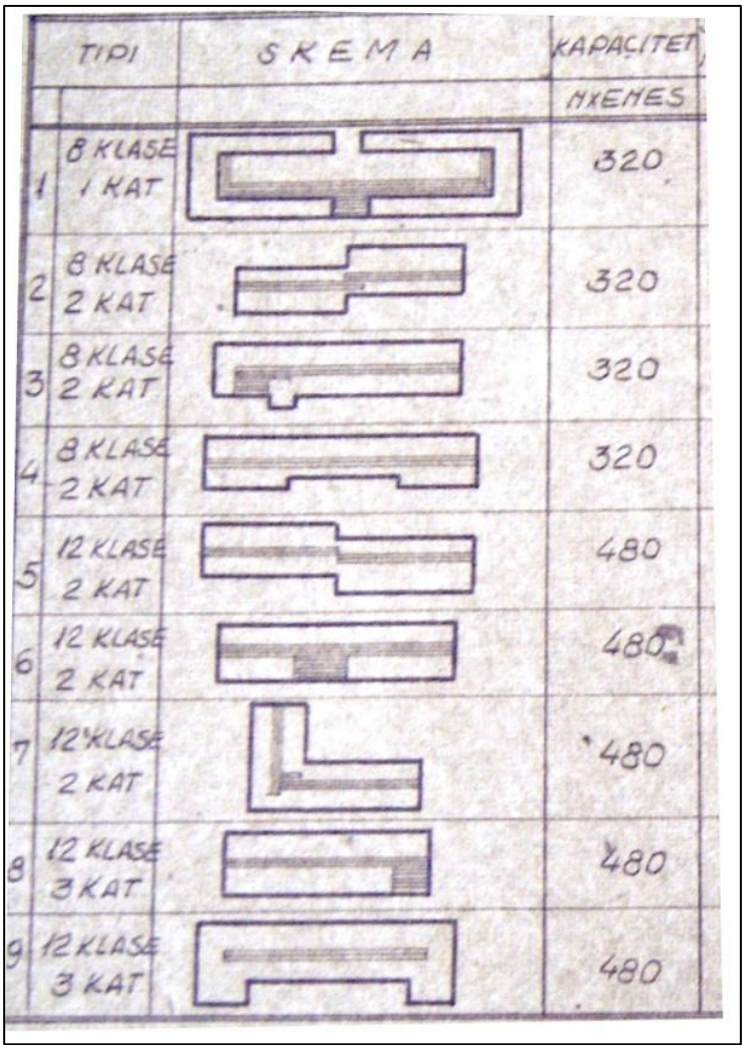

Figure 2.8 : Schemas of Village School Buildings (State Technical Archive).

In the report of year 1975, Ministry of Education, beside the practice of students on agriculture from this year on was given importance to military physical education. (App. B, a) This year dates the revolutionary work on school texts and the entrance of a new course: Moral and Political Education. Importance should be given to teacher's qualification and accordingly there should be a tendency to equip the schools with material basis. This new course according to the designers of the time has no need for extra space. They could deal with this subject in a normal classroom.

The *fifth* and the last step was in the last years of communist period (1981-1991). If we were to sum up what characterizes Albanian education in those years it can be easily described such as: unique, free of charge, democratic and secular. An example of the period is an addition built to "Edith Durham" school building (Figure 2.9).

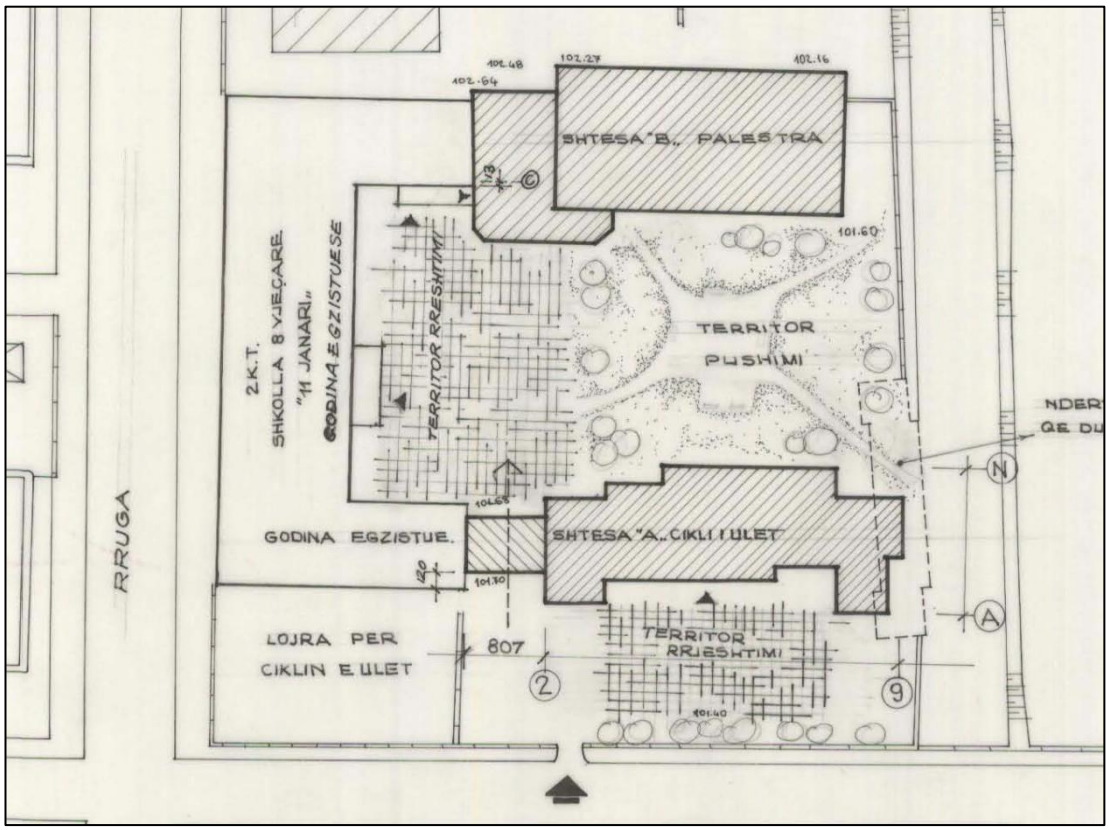

Figure 2.9 : An adopted school building and the addition (State Technical Archive).

The original building was a military barrack adapted to a school building. In 1988, a new school building and a gym were added (Figure 2.10).

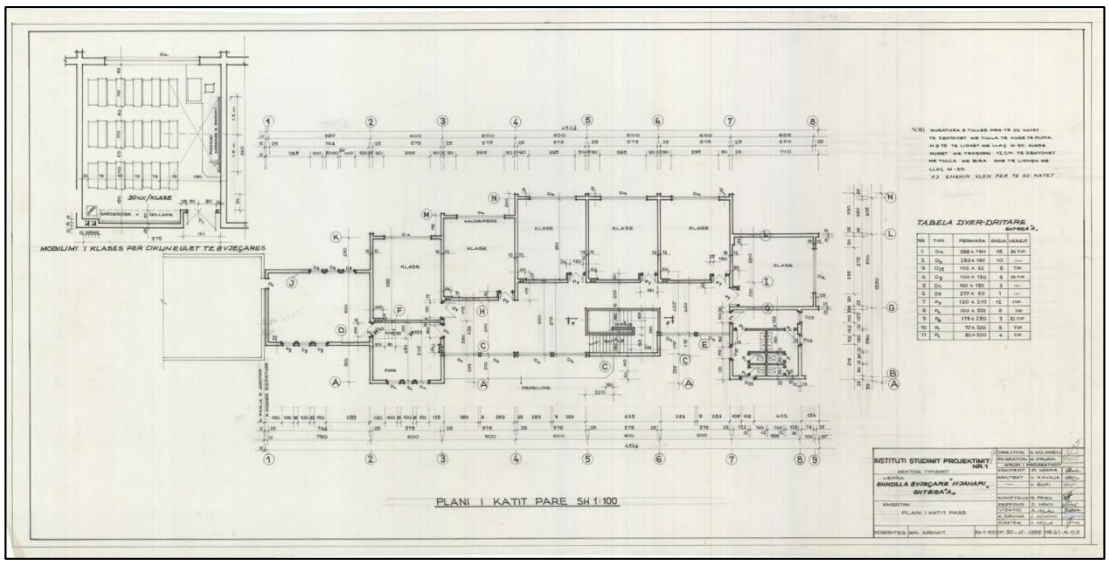

Figure 2.10 : Additional school building and the gym. (State Technical Archive).

The two-storey building that functions as a school is different from the other school buildings and is not a standard type like the buildings designed so far. However,

there is no variation in the usage, the shape of the classrooms or the spaces it provides. In this period starts the diversity in the type of constructions. An example is given in App. B.2).

2.3 Post Socialist School Buildings and Educational System

Looking at the social acts of especially 1991 and 1997, during the first years of the post-communist era, an accumulated hate toward the dictatorship time public buildings is noticed. This reaction impelled the community itself to the destruction of almost all of the public constructions including the school buildings(Dudwick & Shahriari, 2000). The buildings turned to empty construction. Furniture and everything inside was stolen, which turned the buildings to ruins impossible to have lesson in. In only two years "from 1990 to 1992 about one third of school facilities (nearly 1600 buildings) were badly damaged by vandalism, occupied by the homeless or in some cases, burned beyond use" (Metani, 2003, p. 9). A school building in Shkodra city was set on fire showing the extreme reaction to the regime that Albanians had left behind (Dudwick & Shahriari, 2000). Teachers' and school's reputation got lost. Teachers were badly paid and most of them immigrated or were transferred to private schools. In those years, private education was a new phenomenon for Albania. Internal migration brought overcrowded classrooms, which in a way forced parents into having private teachers at home, sending children to private schools and sometimes sending them even out of Albania.

The situation of education and the physical conditions of the school buildings in those years is analysed in a research done by World Bank in 2000 with 12 schools in Albania. This research elucidates the main issues of the school. Accordingly, Albanian school problems of the late period, which have continued to be as such for a long time, are sorted below:

- Schools are institutions separate from community
- Lack of autonomy and authority in schools
- Besides the education of the youth, there is no other function in community

Most of the intended and included people in the educational process think that voice is less listened. The same is for the parents.

- Lack of security

- Marginalization in terms of wealth, origin, colour, and gender is present
- Bad infrastructure
- Overload of courses
- Teachers continue to apply old teaching methods with an overload in theory without practice (Dudwick & Shahriari, 2000).

The current period is a representative of the transitional system. It is a continuous transition in politics, mentality and culture. It is a new paradigm for standardized school designers to a constantly changing design.

Due to the increase in population in Tirana city, school buildings and classrooms are overcrowded. The need for new buildings and upgrading the old ones was immediate directly after the fall of the regime. This situation is still present.

Since 1991 the education system has been subject of several experimentations. Curricula and practice of school subjects are connected with politics. Changes of the governing parties and governments bring changes to the education system and its reforms. Adopting systems and methods from the west is still a tendency. Different schools are part of Albanian Ministry of Education pilot studies in testing new programs of education.

An important reform in the education system is the approval of a draft for the elementary school system in 1995 (Ristani & Klosi, 2004). Accordingly, the basic change consists in passing from an eight-year elementary education to a nine-year elementary school. The schema below (Figure 2.11) shows how the organization of the current education system in the country.

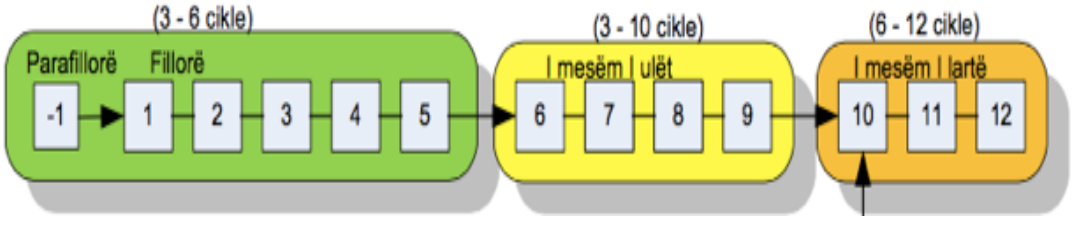

Figure 2.11 : Schema of the education cycle in Albania (Education, 2015).

This tension was shocking for the teaching staff. They had to deal with a new curriculum and with a new age group. The application of this system started in 2009. Among the many problems, users countered physical problem is considered among the vital ones. Based on a research conducted (Talka & Iseni, 2013), implementation of the new system crowded more the existing educational buildings. Laboratories

turned to classrooms to accommodate the 9th grade pupils. Consequently, there is a shortage of the necessary physical spaces in schools.

2.4 A Decade of New Constructıons

Having come out of a communist regime when architecture/ construction was under the state control, Albania fell in a boom of illegal constructions, but not only. The increased population in urban areas needed new construction and the demands were similar for educational buildings. However, as public enterprises school buildings are still under governmental control.

However, facing hard economic conditions the government could not afford new constructions. Children who attended schools had to be divided into having classes into two different sessions; a group of them in the morning and the others in the afternoon session. Though this is not the only problem, based on the guide of Albanian Ministry of Education (Education, 2015, p. 12) for the design of school buildings, below are mentioned a number of problems with the schools;

- Small in size, a situation that forces Albanian Ministry of Education to organize classes with two or three shifts.
- Location in an inappropriate distance, especially in villages
- Rooms for specialized courses are missing
- Most of school buildings are not in a proper physical conditions for teaching

The same guide (Education, 2015) claims that, the basic education school buildings will stay the same with some modifications. Meanwhile the new buildings will be separate buildings of the two composing levels, except for the commonly used spaces. This is for a possible later division of levels. In Albania, the basic/fundamental education is nine years but divided into two levels; firstly, five years and then four years of education.

The decisions about the needs/ norms/ standards are guide for the new schools and those who deal with the renovation of the existing ones. Among the indicators, a number of features have to be taken in consideration: site, plans and school types, outdoor spaces, flexibility.

Site, for example is an important asset in school design. After deciding on the educational needs of the region, availability of the site with water, electricity and other services, topographical and geodesic situation, the Local Municipality proposes

the size of the school building in order to be designed within the planned urban laws and the community participation. There is no standard concept to be applied to educational buildings now. Thus, an example of contemporary design methods in Albania, are competitions about reconstruction interventions or new designs of the education buildings. Nevertheless, government draws some guide about the spaces that the school buildings should have. For example, classroom as the main space, there are pre-designed schemas about the classroom and the way to use the classroom (Figure 2.12).

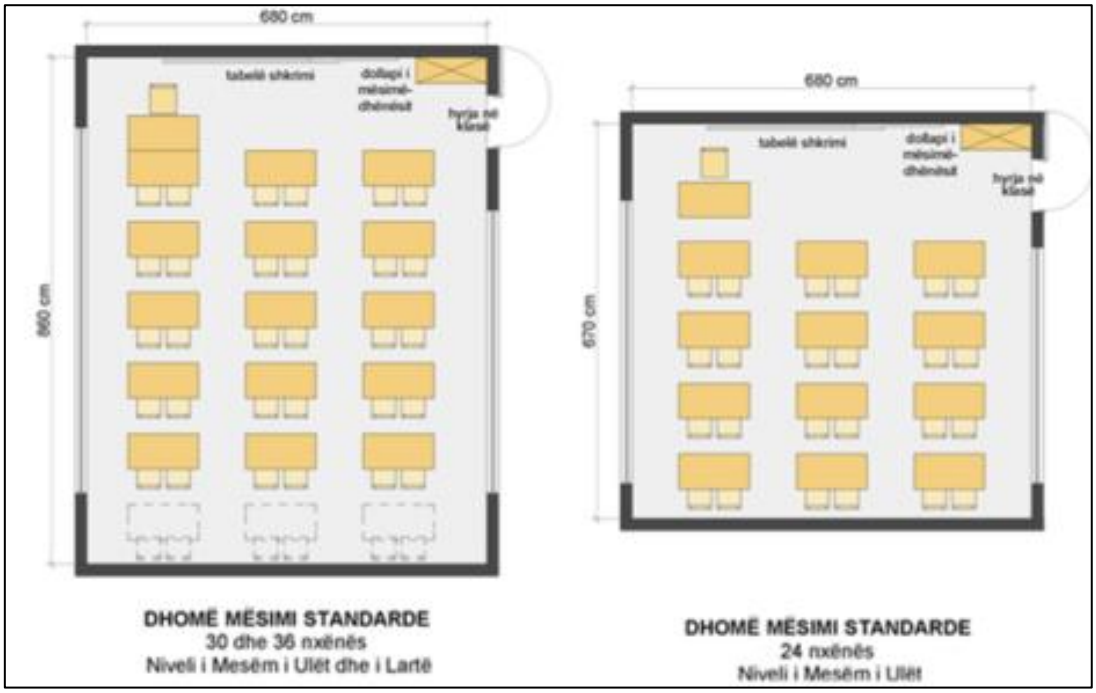

Figure 2.12 : Capacity and the way to design the classrooms (Education, 2015).

Proposed schemas are supposed to make the work of the designers easier. Based on the investor's requirements and the designer, the classroom size had varied from 24 to 40 children per room. Low-density population areas have smaller schools varying from 6 to 24 classrooms. In high-density population areas, school sizes vary from 18 to 36 classrooms. Still, in the Ministry's report, it is explicitly stated that the designer should comprehend and evaluate the curricula of the school and come up with new space solutions (Ibid, p.20).

Exemplary of reconstruction and competition work is "28 Nentori" school in Tirana (Figure 2.13). The task of the architects was to renovate existing teaching environments and to increase their number. Construction and creation of laboratories and sportive areas, completing other necessary functional units and proposing

recreational spaces, are other duties of the designers. There is another intention behind the government reconstruction of and additions to the existing buildings; teaching and education should not be organized at two different times within a day.

The school is composed of two existing buildings. They were adopted as such in 1970. An addition constructed in 2003 connects the two buildings.

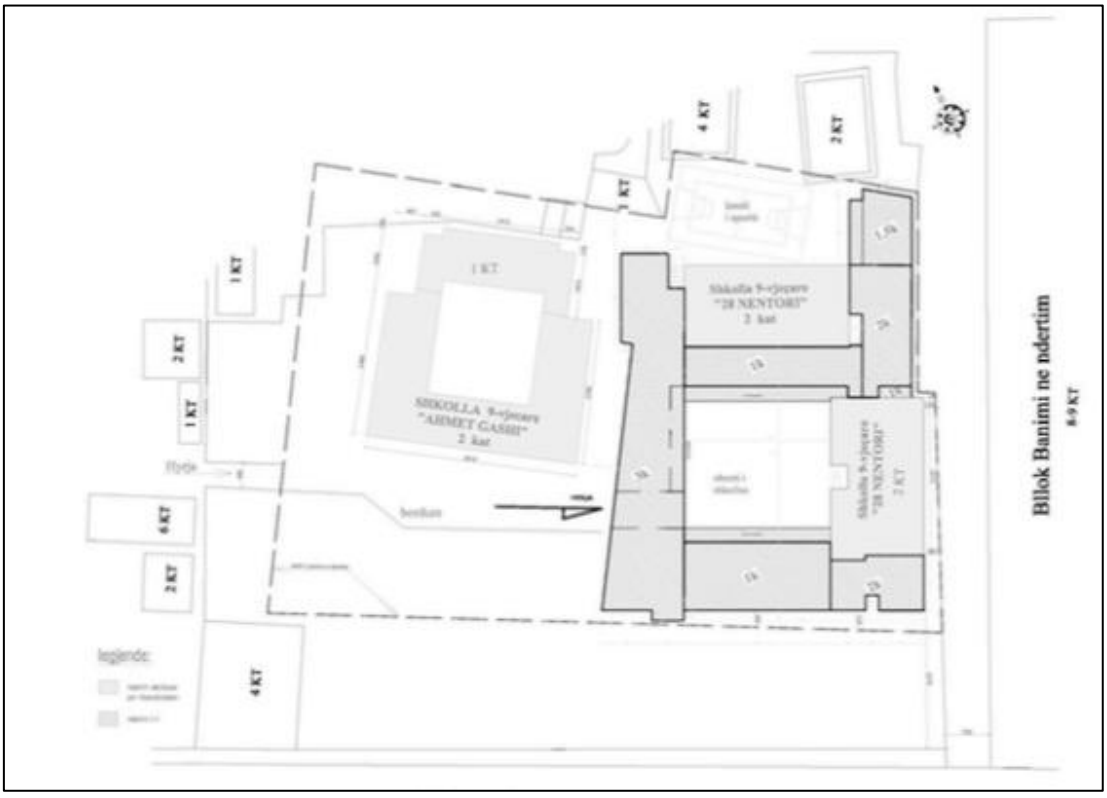

Figure 2.13 : Existing school buildings together with the new additions (Courtesy of Adelina Greca, architect of the new buildings).

The new design makes huge changes. The number of classrooms and laboratories has doubled. Typology of the laboratories is completed for all the specific courses. Open-air area is decreased but it is much more under control.

To sum up, school buildings in Tirana, apart from being an urgent necessity, are very different from the earlier periods. Usually they are attached to a concept that allow their design and their standardized development.

2.5 Community and the School

Before the 1990s, school played an important role not only as a concept for the education of the new generations but also for the use of the building. Before the socialist period, school buildings were centers of meeting for different purposes.

Reasons might be religious or just the opposite to achieve the independence and trying to bring another regime in the country. In the socialist period, school buildings were gathering spaces for raising individuals of the communism and transmitting the ideology to the community. After the school time, the only party in Albania used to organize meetings with the public. In the late years of the socialism school projects dedicated special spaces to the youth to gather and discus the communist ideologies.

After 1990 with the change of the regime, even the community's concept of the school buildings changed. They turned to be only structures where children take 4 or 5 hours of lesson. Yet, there was a period in 1997 when schools in the country were totally closed for months. It was the time of riots against the pyramidal schemes spreading out in the country. Safety conditions forced the government to close the schools. Education was broadcast on Albanian national television for months. Hence, schools lost the only connection with the community: the children.

In the last two decades, government has taken promising reforms. Renovation of some of the existing schools and construction of new school buildings has apparently increased the school-society cooperation. The Ministry of Education and Sport in Albania, states that the education legislation supports the concept of school being equally open to decisions from family and community (Markaj, Mastori, & Sina, 2014).The child in the centre of attention is the main aim of the attempt to turn school buildings into community centres.

According to the Ministry of Education and Sport, the dimension of having community centres is an important reform that will ensure inclusion of the community, a healthy youth, an active participation of pupils and community –local structures collaboration (Ibid). A number of pilot studies and applications have been conducted in this aspect. As these studies resulted successful, it is among the present government's objective to continue with the designing of schools as community centres. Infrastructure plays an important role in the implementation of the project. In general, the school buildings of the after socialist period have a lack of laboratories, internet, gym or heating. The use of school buildings for classes both in the morning and in the evening is among the obstacles of having a fully functioning community centre. In this line, a whole partnership with the community can develop programs, which could increase family relationship with the school. Families, parents

may help in fulfilling infrastructure needs at the service of schools. However, this is not the only reason to develop such a co-operation.

This partnership can ensure everyone qualitative education, guarantee health, emotional and social prosperity, inclusion and improvement of the community, establishment of common decision-making and respect for diversity (Ibid).

In Albania, the initiative "Schools as Community Centres" dating from the year 2013 is deemed as an opportunity for applying all the above-mentioned objectives.

First, the undertaking was piloted in 66 schools; meanwhile, in 2015 schools functioning as community centers number 184. In 2017 this number is expected to be 350 (Albanian Social Services Association (ASSA), 2015).

The community-school relation is a good start in bringing up the value of the schools on one side and educating the society on the other side. In the models used and applied up to now in Albania, the school and the community have mutual benefits. Community is included into the process of education and school plays an active role in the problems of the community. It has the aim to escape from concept of only a school building in serve to children, and to move toward a formal institution that offers other services like workshops, trainings and cultural activities. All, to bring community closer to the school and raising the ownership feeling to the society.

It is understandable that the building and its composing space are aspects to consider for a brighter future and for realizing the objectives of a community school. It is the building that tried to create a balance between the children and the community. Thus, given the needed significance, the pupils as educated future participants of the community should be a priority. In this respect, the children's voice as participants in creating their own spaces should be heard.

2.6 The Current Situation of the Albanian Schools and Future Perspectives

As it was mentioned earlier, as a developing country Albania exposes an educational system tightly connected to politics. With the change of the governing party, the education system meets transformations too. Within these changes and educational reforms, government structures have focused their attention more on curriculum, textbooks, courses taught and the teaching methodology. Although it has been part of the political promises during the pre-election period, little attention has been given

to learning environments in the reforms undertaken in the after-election period. In 2012, 27 school buildings were reconstructed and seven new buildings constructed (UNICEF, 2012). According to the same report, 38 school buildings are in the list of priority out of which 15 buildings need a total reconstruction and 23 demand partial interventions. Problems of the school buildings are varying in scope and range. In her research about the schools in Albania, Anxhela Lika (2014) identifies a number of them. For example, the absence of classrooms and other learning spaces, crowded classrooms and lack of recreational areas are difficulties children encounter in terms of space requirements. However, apart from them she has listed other problematic issues regarded to school buildings, such as air and acoustic pollution, lack of use of passive energy or maximal use of electricity.

Recently Albania has tried a lot in the investment of the educational buildings, but there is still too much work to do. There were about 200 learning environments renovated in Tirana within the last year. A new initiative of the present local government calls different business enterprises to "adopt" a building and to renovate it at voluntary expenses. Present Mayor of Tirana, Mr. Erion Veliaj claims that most of the renovated settings are preschool day-care buildings and he continues arguing the emergent situation of school buildings. As aforementioned, the Municipality of Tirana has in a continuous focus the renovation of educational learning buildings' infrastructure. Accordingly, all nurseries in Tirana have been renovated and the kindergartens will be reconstructed in a short time. Tirana Municipality is planning to reconstruct the schools of the city and to design 20 new ones (Municipality).

In all the cases of designing and constructing learning spaces in Tirana there is no registered practice of asking the children to collaborate or of taking in consideration their ideas. In that respect, with the huge demand for new educational spaces it is essential to allow and practice their involvement not only to identify the needs for learning spaces but also for satisfactory educational level. In the country, the voice and the opinion of the children is missing even in the consulting level. At international level, there are existing models of participation, but their effectiveness depends deeply on the context where participation is applied (Day, Sutton, & Jenkins, 2011). Thus, there is a need to overview the existing models, which are not specific to school buildings and search for other participatory languages in designing or renovating learning spaces.

3. THEORETICAL AND METHODOLOGICAL APPROACHES OF INVOLVING CHILDREN IN DESIGN OF LEARNING ENVIRONMENTS

Participation, engagement, children's rights, children's capacity to participate and evaluate, and post occupancy evaluation are all terms that share issues among themselves with the aim for a better future for the children. Through time, many methods have been used and developed for implementation of each of these concepts in a good relationship with participation. An important and common issue for all of them is the children's right to be involved in the subjects related to them as essential members of the society.

Recognizing children's participation by allowing them to have a voice in the design, of particularly educational spaces as areas where they spend most of the time of the day, is a concern that researchers are articulating and investigating widely. On the other hand, children have powers as much as they are allowed or asked. Their opinions are assessed and measured with the help of different methods, which by the time are multiplied in number and refined in fineness. Still, there is room for improvement.

This thesis looks at children as participants, users, evaluators and decision-makers, through different stages of participation in a close relationship to POE. Through a research on literature, this chapter is looking at participation and POE with children by children, reviewing children's space perception situations and concepts, summarizing child participation methods in educational buildings, defining why participation is important and beneficial by displaying contemporary participation perspectives.

3.1 Child and Space

In order to investigate children's ideas, feelings and experiences about the school buildings, a theoretical framework that describes child's spatial understanding is necessary and useful. Based on the Piaget's (1929) view, which has been accepted by many child psychology researches, one of the factors in a child's space perception

is the age of the children. Accordingly, the children's perception of space starts at the age of eight or nine. It is exactly this time that Piaget depicted the difference in children. At this age, they distance from trying to copy everything and put their own individuality forward. At the age of eleven, the space perception is not any more related to the experience that children create with the surrounding; they can understand through words. At the early teenager stage (13-15 years old) children think abstractly, imagine and so they may largely contribute to design.

Thus, Piaget (Piaget, 1929) bring four stages of development:

- The *sensory-motor* stage, from birth to age two (sensory and motor abilities construct knowledge)
- The *pre-operational* stage, from age two to about age 7(mental symbols help in representing events or different items.)
- The *concrete operational* stage, from age seven to 11 (logical thinking and concrete events are grasped but no hypothetical thinking is possible)
- The *formal operational* stage begins in adolescence and spans into adulthood. (individuals think abstractly and hypothetically)

Throughout all these stages, children build their cognitive development, which is a persuasive and influential instrument also for grasping the environment. Active experience of children helps them develop knowledge as the relationship of interconnected perception, action, reflection, modification etc. (Ceppi & Zini, 1998). Actually, in this point, children are different from adults. Adult grasp the environment directly while children are still exploring the relationship between sensory messages (Day C. , 2007, p. 4).

Plester at al. (2002, p.42) define the experience that people have with the built environment in two ways; firstly, through a close relationship such as living, travelling or manipulating the space and secondly, through an attempt to perceive the space from photos, maps etc.

Piaget and Inhelder's research (1956, 1950) identifies three categories of space: topological, projective and Euclidian. The first category has to do with some of the principles of Gestalts such as continuity, order or enclosure. The projective category refers to the changing features of the space, including even the different perspectives when someone changes his/her point of view. The Euclidian is a geometrical approach to space that supports people's understanding of the space in terms of

angles, rectangular or parallels. Regarding the age correspondence to this categorization, Piaget says that it is the age of 9 or 10 when children think about the space as projective and Euclidian.

Unlike Piaget's cognitive theory, Vygotsky (1978) supported the view that besides an individual cognitive development that children have with the surrounding, they should engage in social interaction with other children as well in order to develop at the social level. Such a rapport, besides their cognitive enhancement, reflects in the kids' wellbeing. In this respect, school buildings are places where children interact to fraternize and certainly areas where learning, in its broad meaning, occurs. School building influences so both the pupils' school life and out of school life. Involving kids in conversations about issues related to the improvement of their wellbeing in the school environments such as curricula or even the classroom layout not only encourages child participation but also builds in their cognitive development. (Gallager, 2006). Indeed, the participation necessity is stated much earlier by the philosopher and educationalist Friedrich Froebel (1885) who has a holistic understanding of participation, supports the idea that children should be given a degree of freedom and at the same time thinks they should be involved in finding solutions to problems as capable individuals to deal with. Appropriately, there are adults who should encourage children to share their ideas for development of society and for raising self-confident adults. Froebel (1885) defines children's involvement as a type of democracy that helps shape individuals and environments.

3.2 Children's Right to Participate

They claim that most of the countries in the world are living in a democracy. Democracy is defined the situation where every individual in community is part of the decision-making process. Convention on the Rights of the Child emphasizes that the children's opinion should be considered in decisions that affect them (UNICEF.a). Children as part of this society should not be prevented from this right. They are vital individuals in emerging a bright future for children as individuals and for the community they are part of. Their participation is as important as an adult's one. It starts with their involvement in the adult's life. Children need a place to sleep, a room or a corner of the room, a wardrobe and many other things that change as they grow up. Thus, they have different degrees of participation, which is impossible

to leave them apart. Yet, they have all the rights to incorporate with their presence economically, culturally and spatially. They are good at fast problem solving and at smart solutions that adults cannot even think about. Unlike adults, they are free of prejudice; they think out of borders and are free of emotions. Therefore, it is the adults' duty to consider the children's opinions and it is of mutual benefit to count the ideas and proposals that come from them. Academics have worked, researched and tried to re-conceptualize children rights in terms of making it legal (Alderson 2000; Hariss, 1996). Moreover, there are researchers (Hart, 1992, Rogers and Wrightsman, 1978; UNICEF) who have tried to schematize the children rights. Accordingly, UN Convention (UNICEF, b) draws some outlines to reinforce their right of participation. For example, when asked about their opinions, children should be free of pressure and manipulation. Convention (Ibid) emphasizes the right to participate from the very early ages "referring to children's evolving capacity for decision-making". Their participation so, is essential because it is related to all other rights of the children starting from "family, school and larger community context" (Ibid). For this reason, this research is planned focus on children as entities of the community and as one of the important authorities on shaping the spaces that surround us. It will put forward the ability that children have to say something about the educational spaces used by them and how the adults can assist them in having a voice.

3.3 An Overview of the Participation Concept

Before passing to a profounder understanding of child participation and to a review of how much has been done about this topic, it is fundamental to firstly define the term "participation" itself.

Participation basically refers to taking part, contributing, partnership, involvement, assistance, sharing in or joining in.

Participation dates back to 1960s, exactly with the movement for human rights. People organized to react in the name of human rights, mostly freedom and the right to be part of decisions. Increasing users' role 'encourages their representation in areas such as health, housing, education, personal social services, social security, and planning' (Richardson, 1983). Yet, planning and participatory design gives freedom

to users to be involved in the process of design. It brings multiple views as an "antithesis of traditional design" (Reich at al., 1996).

Therefore, in this section there is a review of the literature available on children's participation in design and to explore the conceptual frameworks by underpinning the ideas of 'children' and 'participation'. Lately, there has been an increased interest in integrating child's participation in the decision-making process. This interest is seen to be raised among politicians, designers, researchers, etc. Their participation in decision-making is part of their rights. Being an important stone in the construction of the community, children should have the full right to participate in any decision making process. To what degree and in which conditions is a process that never ends.

Actually, 'participation' does take its meaning related to children in the UN Convention of 1989. The Convention also recognizes that children's voices will not necessarily be heard effectively through adult channels, such as the written word, so children should have the right to express themselves orally too, and via other media of their choice (for example, art or drama). One-year later participatory developments were a topic widely mentioned. And in the late 1990s children's right to participate was spread globally"(Mayo, 2001).

Evidently, participation can be interpreted in many different ways such as part taking in the design or contributing and assisting it. Nigel Cross (1972) defines participation by talking in terms of the senses.

"In the first sense, "design participation" must imply sharing the design as a product, in all likelihood the artifact or arrangement which design posits. In the second sense, it implies lending a hand in the process, being one of the design team. There is also a third and more fundamental meaning of "participation". It can denote being a part, rather than having or doing a part. In this sense participating means partaking of the essential nature of something; and "design" can be interpreted in either way, as process or as product." (Cross, 1972, p. 26) It is the process of blurring the borders between the designers and the users. Such a definition is given by Nigel Cross (1972), in the first conference of 1966, which is still active, "Design Participation". Indeed, Cross was not the first who dealt with participation, Yona Friedman (1972) had already worked and proposed a concept of a participating language for non-designers. His concept beside participation had also thought about evaluation of the

daily life routines. His proposed language focuses on the graphics of building system for an individual, free construction by empowering users.

Meanwhile, Friedman (1972) proposes languages and models of involvement, John Habraken (1972) researched on mass housing and participation concept and Lucien Kroll (1987) experimented in practice with participation. The previous researched on housing in terms of applying the techniques of involving the residents in the buildings of their own housing, the latter is considered a pioneer in the field of participation. Kroll (1987) engaged the students in adopting Medical faculty housing in the University of Louvain. All to react to the manifestos and the structured ideas that were imposed by the designers and the governors.

At the same time, Kirby et al. (2003) have agreed that participation is a multi-layered concept. Lately, Tesoro and Force Reference group (2006, p. 6) like-minded in the multi dimensionality of the term participation put their effort in defining the term seen in different scopes within some margins such as:

• "degree of autonomy held by children and young people in the decision making-process, and the roles played by adults.
• individual or group focus on decision-making and the content or subject of the decision to be made.
• types of informal or formal activities being used to encourage children and young people.
• frequency and duration of the participation activities
• children and young people involved".

A difficulty seen in participation is in identifying the context the participation could be located in order to give a definition. Hart (1992) for example grounds participation firmly in democracy stating that it is a tool for the construction of democracy. Furthermore, equality and democracy are achieved by bringing up powerful children for being powerful adults, a concept which by politicians may be seen as the realization of the power. Accordingly, participation changes in context and interpretation; "Participation is contextual, so participation varies in type, level of intensity, extent and frequency" says Sanoff (2000).

The participation's acceptance has to do with the way of thinking of adults. A change in the adult's attitude influences and effects higher acceptance of children

involvement. Ruth Sinclair (2004) mentions three main moves in this respect. Firstly, when it is talked about the “user’s adults take into consideration the children's group. Secondly, according to the Right's agenda, children are legally included in any decision that has to do with them and the third is that adults have understood the importance of child participation in creating their environments. In view of the fact that children have their own space which has differences from the adult’s one their participation is as valuable as significant. For this reason, their involvement in the planning process is widely extended and it has become popular nowadays. Additionally, based on planning in design, which includes a couple of activities such as “programming, design, planning, construction and evaluation” (Francis & Lorenzo, 2002), adults have come to an international agreement that in addition to special needs, children have “special energies and insights that they can bring to the process of human settlement development” (Chawla, 2002). How much children are involved in each of these stages, is to be seen throughout the research. One common thing of children’s participation researchers is their aim to improve children’s individual or collective life conditions.

3.3.1 Significance of focusing on children participation

Sometimes adults encourage children to plan and to program their own researches (Kellett, , 2004) but still, Powell (Powell, M.A. & Smith , 2009) thinks these cases should increase. As for the children, they think that their contributions should expand because it is design that may change their lives for better. (Stafford, Laybourn, , & Hill, 2003). Thus, before having a look at the reasons that enforce initiatives about the children’s participation, it is worth mentioning here the priority children have in everyone's life.

In a report, UNICEF (O'Donnell, 2004, p. 19) has stressed the importance of children's participation as an opportunity for them to be healthy individuals of the future. Explicitly, it is declared:

“If children are unaware of their right to be free from abuse, or do not warn of dangers such as trafficking, they are more vulnerable to exploitation. Children need to be equipped with the information and knowledge necessary to protect themselves. They also require safe channels of participation and self-expression. When children

have few opportunities for participation, they are more likely to become involved in crime or other dangerous or harmful activities."

The report further claims that the fruitfulness of the participation is very substantial not only for the children but also for the whole society. Louise Chawla (2002) points out some particular reasons, which are quite important for the planning staff to start thinking more about including this portion of the population in the design. They are as follows:

1. Children have separate needs
2. If environmental standards were adapted to children's needs, the result would be a safer world for all ages.
3. Because children have the longest future, they direct the policy making for long-term planning.
4. Attention to children highlights the urgency of investment in basic needs.
5. Attention to children emphasizes the importance of human development focus in planning
6. Given the relative lack of mobility and their dependence or immediately accessible resources, children draw attention to development at community level.

In other words, in case adults are aware of the benefits, then they can realize the reasons why they should accept their involvement in the design community. David Driskell (2002, p. 35) in collaboration with members of the "growing up in cities" project has prepared a manual for participation in which he categorized the benefits of participation respectively to groups that can profit from such an involvement. Advantages split among children/young people, other members of the community and among planners and policy-makers. For instance, young people feel excited about a different activity, out of the school curricula, because firstly, it is challenging for them and secondly, they have the opportunity to understand and observe "community and environment in a new way". At the same time throughout these activities, children "learn about democracy and tolerance" a great number of friends and grown-ups they interact with thought. Moreover, during this process, which positively changes the environment and the community and which grows "new skills and knowledge", the sense of belonging is developed, which may in turn result in a good maintenance of the environment. Besides these values, participation "develops confidence in their abilities to accomplish the goals they set" and "strengthens their

self-esteem, identity and sense of pride" (Driskell, 2002). All these advantages "focus attention on contribution to children rather than contribution by children" (Zartler, 2010). In addition, there is a growing realization that, including the force of children in design represents a start to see things differently and learn what children say about the environment.

In this approach, the needs of the community are fully comprehended without leaving any part of it out. The decisions are expanded to include informing and educating the community on the complexity of this stage. The UN convention on the Rights of Child directives can be implemented on a pilot study and "involve young people in efforts to implement sustainable development". All such decisions put into practice will offer "more child friendly and humane" urban environments (Driskell, 2002, p. 35).

Additionally, participation is a tool to go out of a linear, standardized design. It helps architects and designers understand the local context and perspectives of users in order to come up with dynamic designs. Since the duty of architects is to design for the community, and since the community has its own dynamics, a dynamic design with the flexibility to change is what one can achieve through participation. For Randolph Hester (1975) a designed space results successful in case social dynamics of that place are taken into account. Only in this manner the users' needs and wants are reflected.

A key issue in understanding the value of participation is considering the kids not as collaborators for receiving from them data to use in later design of the spaces, but on the contrary, as Parrnel et al(2008) define, as equal members of a designing team. Importance lies in how to find the best way to attain this. In that matter, methods and the ways of participation, which change according to age, gender, context, culture, etc., draw the outline for achieving the aim of having children as partners in a design team. Although users are not architects, "they understand which kind of environments they need in life in its various facets; during work, school, kindergarten, and in other circumstances". It is then the duty of architects to develop "a system of communication built on the comparison of different atmospheres" (Hoffman, 2015, p.41).

3.3.2 Models of children participation in design

There are a number of models of participation, such as those of Hart (1992), Rocha (1997), Rajani (2001) and Shier (2001), which have their own methods of participation, and, which most of the time are more than just giving a definition of what participation is. Researchers have always produced different models and they will continue to do so. Models are a guide to practitioners by expressing the multidimensionality of the process of participation. Moreover, the models give the practitioners clues on the intensity and the level their participation strategy could be. He displays the level that the participants affect or control the design. It demonstrates clearly that there is no linear participation and that collaboration among different levels is possible.

Mainly, these researchers focused their typologies on the levels of participation in terms of what degree the involvement occurs (Arnstein ,1969 and Hart, 1992).

A variety of models can be mentioned. In a report conducted by HALTON Kids (HALTON Kids Our Kids Network), there have been identified 37 different models for youth participation. Andreas Karsten (2012), in his collection of the models of participation, categorizing them as models for citizens/youth and online, mentions 36 different models (Arstein, 1996; Hart, 1992; White, 1996; Shier, 2001, 2010; Fletcher, 2003; Shier at all., 2012).

The purpose, aim and the value that models propose are variables that change in different conditions. For instance, in 1969, Sherry R. Arnstein was the first who took the big step by categorizing participation as a representation of the power of the citizens in eight levels. She considers participation as the participants' power (Arnstein, 1969).

On the other hand, Hart's (1992) Ladder of Participation (Figure 3.1) is probably the most widely accepted model of participation and as well the widely cited model. Hart has adopted the model from Arnstein.

Concerned about the children's perspectives and as an environmental psychologist, he developed the ladder for UNICEF in 1992. Though his aim was not a model for practicing participation, it has become the main thinking about children participation.

Furthermore, it “is a tool that helps service providers to understand better the degree to which children and young people are more genuinely involved in decisions about service delivery.” (Pomerantz, Hughes, & Thompson, 2007, p. 20)

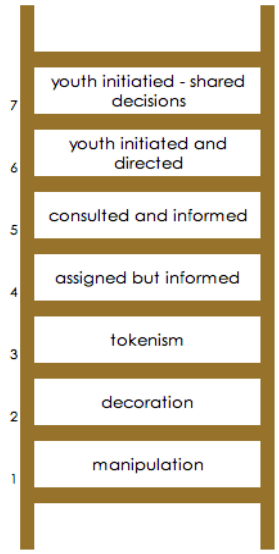

Figure 3.1 : Ladder of participation (Hart R. , 1992).

Decision-making is carried from “non-participation” to “degrees of participation”, from down up the ladder. On this ladder, latter on, other schemas are developed. In Harry Shier’s (2001) are introduced 5 levels of participation beginning with learning to listen children, supporting them to communicate their ideas so that they can be taken in consideration and involving them in decision-making as an illustration of “power and responsibility” share.

Shier’s model (ibid) tries to identify three steps of commitment for each of these: level opening, opportunity and obligation. Opening means only a try from the participants, a beginning of self-commitment which shows that the participant is ready to operate at a specific level. Opportunity means that the needs for participants’ operation at any level they are involved, are satisfied. Obligatory step refers to the organization team, which should be ready to operate with the participants at any level. Shier has explained step by step the way of involving children in decision making. Based on specific tasks, his comparison to Hart ladder has an attitude to change something for children and not to use them like the first three steps of Harts schema. On the other hand, Shier (ibid) finds the lower levels of the ladder very successful because their identification enabled researchers to think more about improving those issues.

Both schemas are general ones for children's participation in different stages of life. However, lately there is a greater interest in the researches on their participation in architectural design and urban planning. Their involvement develops and supports them socially and improves their skills in dealing with the environment. To achieve this, Francis and Lorenzo (2002) have come up with seven approaches to be used by adults in children's participation in the field of design:

Romantic Realm; children are the planners and they are the best architects and engineers of their environments and in this approach they generally operate without adults.

Advocacy Realm; children are not involved in the planning; they are used as tools by adults for advocating the needs of powerless people.

Needs Realm; children are not directly part of the design, but their spatial needs are put forward as a social need, emphasizing social sciences significance.

Learning Realm; environmental education and learning as part of social changing rather than transforming the environment.

Rights realm; here the children's right is more important than environmental needs.

Institutional realm; children in this realm are treated as adults. They plan and act as adults, but within the frames and the conditions settled by adults, which then results in an ignorance of the spontaneous child participation.

Proactive realm; a combined research among children, adults, planners and designers. This method is recognized as the most successful in terms of involving the young in design.

Francis and Lorenzo (ibid) claim that they judge that a great number of projects can be located at one of these categories. All are about the role of children in the projects. Variation in the usage of a method or the other makes involving children in the design of environment change according to the site and the needs. Meanwhile, the above schemas are derivatives of Hart's plan and are characterized by the hierarchical approach of going from less participation to a higher one; the schema Feinstein, Karkara & Laws (2004) conducted is different. It is "looking at participation in the various parts of the research process. (Figure 3.2) It also (Hart R. , 2008)suggests the idea of travel and of learning from one's experience." Their

research is substantial because it is a new way of thinking about participation. Children could have different roles by engaging at different levels of the process. They can be advisors, respondents, co-researchers or development workers (Feinstein, Karkara, & Laws, 2004).

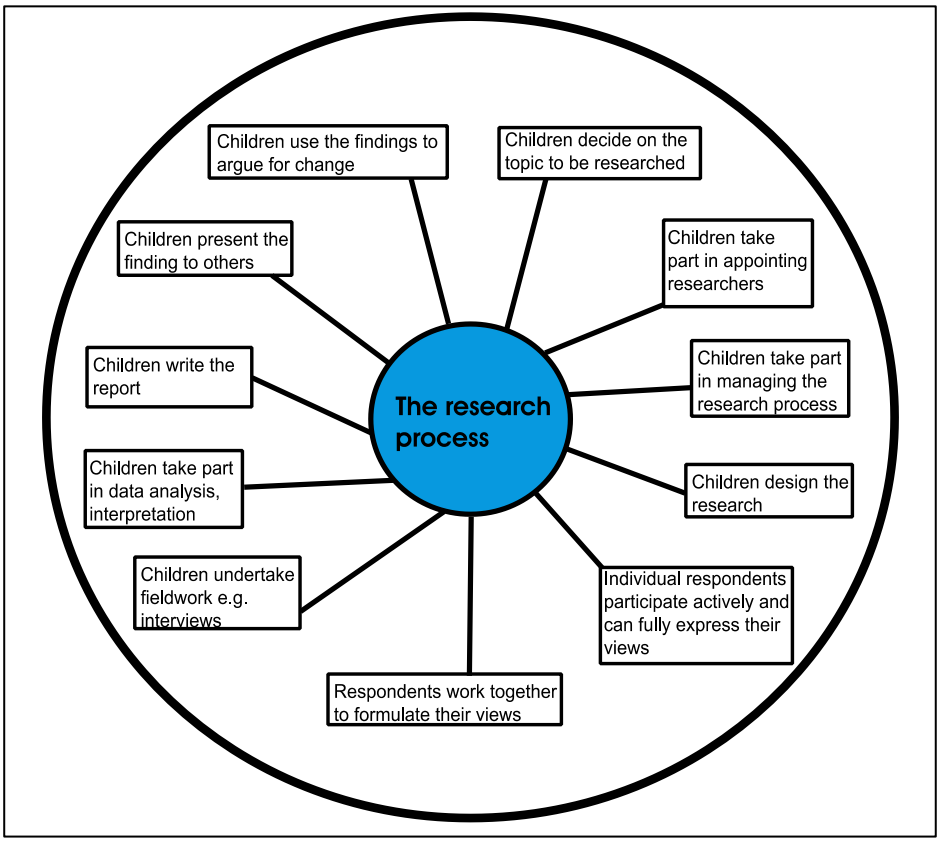

Figure 3.2 : A wheel of children's participation in research (Feinstein, Karkara & Laws, 2004).

Additionally, Gery Lansdown (2011, p. 146) makes a division of all these forms of participation into three main categories:

1) Consultative Participation, 2) Collaborative Participation, 3) Child- led Participation.

In the first collection, there are adult initiated, led and managed projects that intend to search children's views in order to gain knowledge about the children's lives and ways of life. In this group can be located three first steps of the Hart's ladder; manipulation, decoration and tokenism, where children are not aware or a little aware of what is going on. In tokenism case, for example, children appear to be participating, but they do not have much choice in the subject matter. In collaborative participation, as its name suggests, there is a greater alliance between children and

adults. It is adult initiated, involves partnership with children by "empowering children to influence or challenge both process and outcomes", thus providing a level increase in self-direction in children. Compared to the Hart's ladder, it collects the other three steps known as: assigned but informed, consulted and informed and adult initiated shared design with children. Here children may perform different activities such as:

"• enabling children to identify what the relevant questions are

• giving children the opportunity to help develop the methodology for the research

• enabling, encouraging and supporting children to take on the role of researchers

• involving children in discussions about the findings, their interpretation and their implications for future developments."

The third group of participation processes, which correspond to the highest two levels in Hart's ladder (child initiated and directed, child initiated and shared decisions with adults), is child-led participation. "The role of adults in child-led participation is to act as facilitators, resource-providers, technical assistants and child protection workers to enable children to pursue their own objectives" (Landsown, 2011, p. 149).

In fact, many researchers make different categorizations related to forms of participations. Up to this point, we have revised the levels of participation by emphasizing the issue of the significance of the reasons why children should be heard. Louise Chawla (2001) categorizes requirements for ensuring ethical child participation and guides to how to begin a new participation. Her work is also a kind of derivative of the above-mentioned topics, but she adds some other issues according to the participants' profile. Her prescription is as follows:

*"Prescribed participation "*The child feels a moral and cultural obligation to participate and considers the opportunity to do so a privilege. There is some choice, but conventions within the culture are strong for this to happen. In assigned participation, adults such as teachers and parents provide opportunities for training in participation. This involvement is directed by adults, but the child experiences it to be meaningful.

Invited participation: It is adult initiated and controlled, but the child has the right to withdraw without feeling disadvantaged.

Negotiated participation: The child is assigned a participatory role, but has opportunities to negotiate how to carry it out and the level of involvement.

Self-initiated negotiated participation: The child initiates it and controls it, negotiating the level and type of involvement and how long to continue.

Graduated participation: As the child increases in competence, he or she has opportunities to practice new types of participation, assume new levels of responsibility, and find new occasions for meaningful involvement in the community.

Collaborative participation: It is initiated and supported by a group, which collectively negotiates the level and form of involvement."

Other researchers that structure their models based on Hart's ladder and are essential to mention are Treseder (1997), who modifies the hierarchical rank of the levels of participation and Barbara Franklin. The latter increases the ladder by adding two layers at the bottom and by fixing at the top "rug" the "children in charge" (Franklin B. , 1997).

To sum up, although there are different names given to the participation processes, the goal is the same. They all contribute to finding the perfect point where freedom constitutes the key in children's participation. All of them are researches that focus more on practice than on theory and indeed, the models are helpful for creating fields of research. There are different criticism topics that are related to participatory design, but apart from them all (Franklin 2002; Cornwall, 2008; Chawla, 2001; Moses, 2008; Hart, 2008; Shier, 2001), Chawla (2001) underlines the idea that there is no one way of participation to be adequate to all known models. Thus, children participation theories and models need alternative researches to explore the possibilities for effective children's involvement. POE as a method and theory (Franklin B. , 2002) (Cornwall, 2008)would be a proposal to capture the complexities of children's lives in relationship to build environment.

3.4 Methods of Children Participation in School Building Design

It is widely accepted that the school environments develop pupils in terms of social and cultural fields. Learning happens in interaction with curricula, people and build environment. The curriculum is about the courses offered by a school and it is like a guide about the activities that should take place to accomplish the objectives of each subject. People, be they children or teachers, are important components of school life. For learning and social activities to realize, build environment is a condition because "children's social exchange between other children and teachers takes place in space and can be enhanced or discouraged by the physical setting. The building itself can be viewed as a mediating artefact" (Itoh, 2001, p. 4). Sanoff (2001) categorizes the school building as functional environments, as learning environments, as visual object and as part of the wider environment. Therefore, the school building should include a range of indoor and outdoor spaces for pupils to meet in groups whether small or large. (Ibid.) It is crucial not to forget that school buildings are child environments and they should be treated as such. In literature, it is certain to find a number of standard prescriptions developed by each country for the school space layouts, which include the dimensions, the furniture and furniture sizes, the space layouts, the needed green or open space, etc. The designers for sure should consider other contextual factors to constitute not only one way of school building designs, according to Sanoff (1994). A designer has only to obey the instructions and recommendations that the government proposes. However, there is another way that Sanoff advocates: directly asking the users of the building. Methods to invite pupils to participation define at the same time the involvement process.

3.4.1 Methods and their categorisation

Many participation methods are used to encourage children participation in design. All the known methods have their strengths and weaknesses; meanwhile, when and where to apply a method depends on context, purpose, participants, etc. Sanoff (Sanoff, 2000) proves with his works in participation that a combination of several methods helps achieve deeper the aim. Horelli (2002) mentions that together with Sanoff, there are also other authors who have practiced implementing more than one method. She argues with the idea that the methods are closely related to the levels of participation. Accordingly, Horelli (2002, p. 633) holds the view that "the higher the

level of participation, the larger the spectrum of tools and methods that can be applied and created". The use of different participatory methods with children opens up diverse ways of communication, which stimulate children to think differently. Looking at the nature of the methods and tools used so far by the researchers it is possible to classify the tools into different categories depending on certain features. For example, it is generally accepted that children are different from adults. Their space conceptualization is different. Therefore, one classification is child participation methods and adult participation methods. Furthermore, within this classification, there is the division of the methods that are textual and non-textual. Such a split is considered by Sanoff (2001) as methods based on visual and verbal tools. Participatory visual methods unit is composed of some creative modes of communication, such as drawing, photography, drama play, video recording, etc. Verbal tools involve tools such as storyboard, essay writing, wish poem, if I was a major activity, interviews, questionnaires, presentations, open discussions, etc.

Another grouping that reveals from the literature review is according to methods being "evaluative" or "creative (Ghaziani, 2010). Similarly, Nikki Slocum (Slocum, 2003) divides the Participative policy process into steps, which matches Sanoff's methods. The idea is to involve users in the decision-making process and in an approach with the proper methods to be used in any of the three steps cycle of the participatory policy process. Cyclic process is composed of planning and implementation, which correspond with the use of creative techniques, and evaluation, which matches "evaluative" methods. Sanoff (2011) has collected methods that are particularly for the school buildings in a booklet. Evaluative or "assessment" methods, as he calls them, are in themselves various in types: photo-questionnaires, wish-poems, smiley and sad faces and Post Occupancy Evaluation Sanoff (2000). School buildings are also treated in other works of Sanoff, where he tested participation processes with the help of techniques such as charrette process, self-assessment, games, etc. (Sanoff, 2000).

3.4.2 Creative participation methods for school building design

As already resumed in the levels of participation, the integration of users into design process changes from inactive (informed) to active participation. The involvement of space users expands not only designer's knowledge about the way spaces are used;

the participant's space knowledge as well has its own benefits. Sanoff (2007)is of the opinion that building process of the participatory approaches should take into account the expertise of the users "affected by design decisions". Children as the main users of the school buildings affect data collection and therefore the decisions for a successful school building design.

Charrette process is among important creative methods mentioned by Sanoff (2001). In other words, he calls it the process of "generative design ideas" (Sanoff, 2001, p. 15). It is like a series of exercises to achieve several feedbacks for creating development plans where the participant's views are reflected (Sanoff, 2000; Lennertz, 2003). To reach the goals, this process is composed of three different "mechanisms"; it begins with the data and knowledge share among all the participants, then continues with the second mechanism where discussion about the generated ideas is needed to come up with a decision, to be finalized with proposal and recommendations (Sanoff, 2001, p. 15).

The positive aspect about this method is being adapted to each location and situation, which according to Charles Zucker (1995; as cited in Sanoff, 2001, p.51) are mainly classified into 4 categories;

- Educational: well defined architectural problem for achieving results in terms of schemas and sketching
- Leadership forums: groups define problems and test strategies
- Traditional problem solving charette: solutions to well defined problems
- Interdisciplinary; to test interdisciplinary problem solving techniques

To accomplish the goals with the help of the charrette process, the tools also play an important role. Which method to apply where gains priority in researches done with children. According to what is revealed from literature review, some methods can be tagged in both 'evaluative' and 'creative 'methods. For example, "wish poem" is a tool in the charrette processes which with "the formal repetition of the same words is designed to encourage freedom and imagination" (Sanoff & Barbour, 1974). However, Sue Cox and Anna Robinson-Pant (as cit. in Ghaziani, 2010) classify the "wish poem" among the evaluative methods. Similarly, "if I was a Mayor" activity helps kids to fly their imagination and forget about policies or the lack of power.

Through it, they are creative and generative. The same can be said about storytelling technique. Such a practice organized by the researcher with users focuses into two segments; one asks and collects data about the past, about the use of the building, and one focuses on the possible scenarios of the future (Buskermolen & Terken, 2012).

Plenty of other methods provide creative results mostly mentioned in the previous session. A traditional and basic method is drawing. As a research tool, drawing is also used in sociology and health researches. Generally, it is complemented with verbal research method aid participants in explaining what her/his drawing was intended to communicate (Guillemin, 2004).Drawing is an effective tool to generate the inner world of the child participants. In fact, it is suitable for all ages, which makes it a frequently used method in design. It is a fun activity for children and since there is no need to be good at literacy it is a research method which works independently of "backgrounds and cultural contexts" (Literat, 2013).

3.4.3 Evaluative participation methods for school building design

Having explored the nature and the purpose of creative methods in the previous section, this part explores methods and data collection used in evaluative participatory methods, which are classified into verbal and visual. Wish poem, smiley/sad faces, storytelling, questionnaires, walk-throughs, interviews, observations and post occupancy evaluations (POE) are some of the most used methods. Regardless of the classification of these methods, POE is both a method and an approach.

According to Sanoff (2011), POE incorporates almost all the above listed methods. However, he is not the only one who thinks as such. There are many researchers (Bordass & Leaman, 2001; Preiser & Watson, 2010; Watson & Thomson, 2005) who worked with such participatory activities and who include the participants in interviews, walk-throughs and forums to discuss not only problems but also the solutions. Riley, M. at al(2013) say that the process should not stop only in the finished building, but it is better to have continuous feedback "throughout the building delivery cycle"; though there are scholars such as Watson (2003), who thinks that POE is an approach that can be conducted any time in the life of the building. The essence is to get the feedback to fulfil the objectives of the evaluation very finely defined as POE, among a variety of so, by Preiser et al; "an appraisal of

the degree to which a designed setting satisfies and supports explicit and implicit human needs and values of those for whom a building is designed" (Preiser et alp.12).

Over time, researches on POE have always increased and intensified not only the focus, but also the methods and techniques.

Prieser (1995) classifies three main methodologies regarding POE naming them indicative, investigative and diagnostic. Simultaneously, he associates these methodologies with the equivalent data collecting methods. Therefore, Prieser (ibid) recommends using walk-throughs, interviews and group discussions in indicative POE. Interviews and questionnaires are methods to be preferred in investigative POE, meanwhile the diagnostic ought to be used with similar cases for comparison reasons.

Actually, researchers advise that more than one method or multiple methods in the evaluation of the building are a necessity (Zimring & Reizenstein, 1980). Later on, other scholars have come up with more methods. Visual recordings (Leman, Stevenson, & Bordass, 2010) and observation of the buildings after being used (Ziesel, 2006), exactly to find hints on what the users have left behind in order to understand the way of living, are other additions to the already mentioned data collection tools.

The applicability of these methods appears to be an important feature of the POE, which aims to improve the living quality and to influence all the people related to that specific building, be these users, designers, financiers, etc. (Zimering, Reizensteinp, 1980). Furthermore, "an important feature in the majority of POE studies is that it involves a systematic investigation of opinions, perceptions, and viewpoints about building environments in use, from the perspective of those who use them" (Salama, 2008, p. 108).

3.5 Post Occupancy Evaluation

Post occupancy evaluation dates back to the mid-1960s (Preiser and Nasar, 2008). During these years, there was an increased interest in research on human behaviour and building design. Such an interest was manifested in the creation of both the field of Environmental Design Research and several professional associations. Of special

note, and one of the best-known associations, is the Environmental Design Research Association (EDRA), which was founded in 1968. Members of these associations come from various fields of research such as design, psychology, sociology, and anthropology, among others.

In Britain, France, Canada and the United States, POE was a participatory design method of evaluating the student-housing sector (Vischer, 2002; Zimring, Rashid & Kampschroer, 2000). Preiser et al (1988) and his colleagues express the need for such an evaluation as a method of having adequate feedback. Feedback from the occupants and users is of profound importance. Consideration of this need is increasing daily due to the increase in the standards of living. User expectations from the environment surrounding them have also increased. Thus, the evaluation is two-sided. On one side, it seeks to determine how satisfied people are with a particular setting, while at the same time, it "can provide feedback to clients and designers on the impact of settings on behaviour" (Wener. R., 1989, p.228).

Preiser at all. (1988, pp. 4-5) make a categorization of the benefits that POE brings in the short, medium and long term. In this study, the essence of the research is to determine the benefit from short-term post-occupancy evaluation, which is defined as follows:

- Identification of and solutions to problems in facilities
- Proactive facility management responsive to building user values
- Improved space utilization and feedback on building performance
- Improved attitude of building occupants through active involvement in the evaluation process
- Understanding the performance implications of changes dictated by budget cuts
- Informed decision-making and better understanding of design consequences

Furthermore, Riley concerns himself with not leaving the process only for the finished building, preferring instead continuous feedback "throughout the building delivery cycle" (Riley. M., et al., 2013). However, there are scholars such as Watson (2003), who think that POE can be conducted any time in the life of the building. The essential part of receiving feedback is to fulfil the objectives of the evaluation, which are defined in the words of Preiser and his colleague as "an appraisal of the

degree to which a designed setting satisfies and supports explicit and implicit human needs and values of those for whom a building is designed" (Preiser at all. p.12).

Over time, research on POE continues to deepen and intensify, not only in its focus, but also in the methods and techniques used. Moreover, in the wide range of POE studies, Zimring and Reizenstein (1980, p.431) consider that three "conceptual dimensions are of particular use in cataloguing them: generality, breadth of focus, and applicability." Generality is dependent on the intended results of the research study and is a good place to start when focusing on the aim of the evaluation (Zimring, Reizenstein, 1980).

Breadth considers the attributes of the study (Zimring, Reizenstein, 1980). What Zimring and Reizenstein mention as the third dimension of POE is the time of application (1980). Applicability, as an important feature of the POE, aims to improve the living quality of and to influence all the people related to that specific building. The people in consideration include users, designers, financiers, etc. (Zimring, Reizenstein, 1980). "An important feature in the majority of POE studies is that they involve a systematic investigation of opinions, perceptions, and viewpoints about building environments in use, from the perspective of those who use them" (Salama, 2008, p. 108).

The literature on the value of POE of educational buildings is tightly connected to the successfulness of building performance. Educational environments should assure quality for high educational achievement. POE as a tool is used not only in the design of good buildings, but also in the improvement of existing buildings.

Educational buildings are among the types of buildings that are most in need of rapid evaluation and maintenance. Post Occupancy Evaluation of the school buildings has a history of more than half a century old (Lackney, 2001). Plenty of examples are from Scotland and the USA. New Zealand and Australia have also seen a wide range of POE in a wide range of building typologies among which educational buildings make up a considerable percentage (Watson, C., Thomson, K., 2005). The latter is widely covered by Henry Sanoff with his experience in North Carolina. Sanoff's leading institution, the National Clearinghouse for Educational Facilities (NCEF) with its center in Washington DC, brings a wealth of experience in the POEs of educational buildings. Their collection of research on the three known types of

POEs; the Indicative POE, the Investigative POE and the Diagnostic POE (Palm, 2007) provide a valuable platform for lessons to be learned by the POE process to identify the usefulness of the existing learning spaces and in gathering information for the future. In England, such an assessment is crucial in the recruitment of new students and academic staff (CABE, 2005) and since teaching and learning are of primary importance in the school building, the developed countries stress the importance of POE of physical environments as an essential tool in designing new buildings (OECD, 2009).

Among the problems identified by the Commission for Architecture and the Built Environment in the new school buildings are problems with acoustics, lighting and improperly ventilated spaces (Wheeler, A. and Malekzadeh, M., 2015). According to Michelle Bound and Claire Flemmer (2014), productivity improves wherever these environmental issues are considered. For example, temperature and ventilation concerns are grounded in user's asthma problems, good acoustics and spaces without noise are vital for learning, natural light has an influence on the body and human mind, and good maintenance and flexible design requirements influence educational outcomes (Lyons, 2001). According to Kahil et al (2011) "The educational process and learning activities may be de-motivated and interrupted due to poor environmental conditions." Hence, it is vital to consider environmental aspects in a more efficient way. However, this should not be the only concern. An overall performance of the building including "the building's appearance, its evaluative quality, the meanings and evaluative responses it conveys to the users' should also be part of the investigation (Preiser. W., Nasar. J., 2008).

For example, in their research about bringing post occupancy evaluation to schools in Scotland, Chris Watson and Keith Thomson (2005) gave importance to the increase in the feeling of inclusiveness in the process. The method of participation in those cases is thought to bring greater transparency. Thus, researchers, and in cases where these researchers are the architects of the buildings, architects, assimilate better what is fundamental and do not present subjective illustrations of the results (Watson, Thomson, 2005). In the evaluation of the Faculty of Arts and Science of Dokuz Eylul University, Rengin Zengel and Ilkim s. Kaya (2011) advance the idea of participation. Their research showed that students not involved in the university environment have a great risk of not using the building. Still, their participation and

satisfaction may change based on their status in the institution. Freshmen have a different attitude compared to seniors, for example. Zengel's research is still not completed. Accordingly, they propose not only student views about the educational building but all the users' perspectives. The evidence collected influence not only the designing of new educational building but also the use of these environments. Not only do such researches bring benefits for the users, but they also offer solutions to school management, government and designers. Like so, architects can test the effectiveness of new design patterns" and children together with teachers are informed about the proper pedagogical use of the learning environments. (Cleveland & Fisher, 2014). The results of such a research come through different methods and different dialogues, which can explore the children's relationship with the built environment.

It is these methods that contribute in finding out more about the users' behaviour in the building and start a "change in these behaviours at the level of school community" (Wheeler & Malzekzadeh, 2015).

3.6 Studies of Participation and POE in School Buildings

This section presents cases of school building participation to demonstrate the effectiveness of user participation as integral part of school building (re)design and evaluation. A research based on observations and interviews about the accomplishment of participation process in 11 schools in United Kingdom, revealed a lack of experts in participation. Beyond the good will of government, children think they are not fully involved, whereas the government found pupils' participation disappointing (Woodcock & Newman, 2010). Such a situation is generally a result of children excluded from different decision-making processes. In an environmental education program organized in a school in Athens, children were already about the idea of not participating by stating that their opinion is not important to adults. In this research with children from 9-11 years of age and with the aim of children, action and emancipation researcher used participatory methods such as storytelling, photography and environmental drama. The researcher (Tsevreni, 2015) states that this is a kind of oppression: children are the oppressed group and adults are the oppressors. On the other hand, without adults' supervision children will not do anything. The role of collaboration in design takes on great importance. However,

according to (Scariot C. A. et al., 2012) some precautions should be taken so that children as end users are well integrated not only in the process but also in the end results. The research about a reform in United Kingdom "regarding the (re)design, (re)construction and maintenance of educational environments" showed that "in order to become more creative, pupils require more guidance and direction (i.e. less freedom), but with regard to a far greater range of decisions"(Besten, Horton , & Kraftl, 2008). Participation in design and participation in school design in itself are complex processes that the participants should think of. Therefore, in this respect it is fruitful to share the responsibility (Thomas, 2007 as cit. Woolner, 2009). Woolner (2009) adds that the focus should be on a certain group, because the more people engage, the more difficult it is to share responsibilities.

In a public space redevelopment project in the city of Boulder, in which about 225 children and young aged 4–16 took part, is a trial to move from theory of participation to application. Researchers (Derr & Tarantini, 2016) included methods such as "drawings, photo-voice and photo-grids, field trips, City as Play, and presentations and dialogues with city staff and city council". Here the benefits of this project were mutual. Children expanded the feeling of being heard and doing something for the community, and municipality staff was impressed by recommendations stating that they would certainly apply the proposals. Interestingly enough, in their proposals, children considered all age groups from the youngest to the oldest.

Another important issue that results from this two-year-long project is the continuity of the government-children partnership, which through listening and dialogue constructed an effective participation. Thus, children showed the researcher that in participation there can be tangible outcomes such as spaces they need, but there are also "intangible outcomes" such as the need of other participants to be heard as well.

The moment children's opinions and thoughts are taken in consideration the designers are a step closer to satisfactory school buildings. The whole aim of participatory design is to reach reasonable, suitable and satisfactory outcomes. POE, in this regard, searches the quality, measures spatial experiences, finds out how the school buildings are used, and brings forward the building performance for assessing

the success of the design. In an example from India (Khan & Kotharkar, 2012), as in participatory design, the researchers were in a close interaction with the students in order to understand and analyse critically the building "usage pattern". Observations and interviews were other methods that explored the gap between users' evaluation and the physical design of the school. Based on the findings, many problems on child environmental were revealed such as lack of playgrounds, hygienic conditions, thermal aspects, classroom rigid layouts, etc.,

Wheeler and Malzekzadeh (2015) focused their research in three school buildings in UK with the aim to reveal the way pupils can be inspired to deal with the problems of school design. The methods selected from the researchers were visual and verbal. Drawings, questionnaires, interviews and walk-through methods were later analysed together with the researchers' observations and notes in terms of content analysis. Such methods offer design professionals data with knowledge about school building in order to improve designs and offer knowledge to participants about different issues of design.

Together with the cases mentioned above Hassanain and Iftikhar (2015) review several other cases that apply POE as a strategy to evaluate school buildings through their main users. Their review starts with Prieser (1988), who has applied POE in 4 schools in USA, then continues with Sanoff (1992, 2001) for the variety of methods he has used to emphasize the importance of users. The review continues with Watson and Thomson (2005) for using POE as a tool for assessing educational buildings. Baker (2010) is refered to for the trends they detect regarding school buildings with their own advantages and disadvantages, and Armijo et al. (2011) for different tools used in evaluation to find out "performance deficiencies" of the school building studies.

In short, POE provides opportunities for users and especially children. When it comes to school buildings, it is necessary to be sensitive to different social and environmental factors that are part of the evaluation. Children have the full right to ask for the deficiencies their learning environments have.

3.7 Summary and Conclusion

This chapter reviewed the development, structure, models, approaches and tools of participatory design and POE, as environmental design approaches to (re)design learning environments. Children perception and experiences of places and spaces are essential not only to plan and apply the processes but also to understand and find out the hidden concepts from the products. In this respect, this chapter brings an overview of the child's space understanding based on their cognitive development.

It analysed the existing researches on the two fields with regard to children. Such an analysis contributes to building a comprehensible view of the interwoven participatory and POE theories and methods. Literature review reveals that in such researches multi-method research would open an expanded and complementary view of the ways to deal with children. One method for data collection might have limitations, which can be balanced by the other methods. Clark and Moss (2001) use the label "mosaic approach" to refer to the use of both verbal and visual tools with the aim of gathering children's views and experiences from the way they use the built environment. Each method contributes to a fuller and more complete picture of the research goals.

4. DESIGNING A LANGUAGE FOR PARTICIPATION AND THE CASE STUDIES

Working with children has witnessed different methods of participation. Hart (1997), Driskell (2002), Francis and Lorenzo (2002), Shier (2010) and many other researchers have brought models of participation and empowerments, which make a real contribution to the participatory design field. Their perspective focuses on considering the users as participants of the design. This study instead, proposes a communication language of participation only for children and by children in order to build a layer for architectural design.

This research makes use of a mix of both qualitative and quantitative methods with the aim of fully understanding the research problem. It tries to have a clear view of children's participation in the school building design process with a dominant focus on qualitative approaches, but where quantitative analysis is not missing. In other words, qualitative case studies and quantitative surveys constitute the theme of the research. Case studies are outlined as empirical in order to explore a phenomenon with the aim of and a strategy for exploring through methods and techniques of data collection and data analysis (Yin, 2003). This was one of the reasons for the involvement of more than one case study in this research: to explore more about the participation. As Yin (2003) states, using multiple case studies offers more robust analytical conclusions. The mixed methods used in each case study help to explain the process and the products based on observations, re-interpretations and analysis of the cases (Tellis, 1997). All the case studies are designed to explore the process and the factors that influence children's participation in school design based on "what, why and how" of Yin (2003). This chapter and the explanation of the case studies here are explained as such: what the workshop is about; why the researcher is doing the workshop and how it is implemented.

In order to inquire whether child participation and POE processes can be considered as tools to be used by architects and in which aspects they collide, eight workshops

are conducted with children of three different schools. This chapter presents these workshops. It firstly gives information on the choices, context, school buildings, child ages, aims and objectives of each of them, and then analyses and outcomes of this wide range of workshops are presented.

It is important to emphasize from the very beginning that the schools and the children participating in this research give a model of participation with its own limits. Hence, the study presents an example of benefiting from a model of children participation for educational buildings. Conducting such a research with different children in a different context could bring other results.

The study is conducted as a pool of workshops with different schools in Tirana, Albania (Table 4.1). Firstly, some tentative workshops are made with different children in different settings before taking the decision to organize the rest of the workshops in a single school building.

Table 4.1 : An illustrative table of all workshop data.

W. Nr.	Participant nr.	Venue (Subject)	Child age (years old)	Aim	Methods used
W. 1	15	University campus (1)	10	Exploring school purposes	Brainstorming / post it Drawing
W. 1.1	25	"100 Vjetori" school (3)	10-14		Wish poem Model making
W. 2	76	"Bajram Curri" school(2)	10-14	Children as officers of designing schools of the future	Drawing the ideal school If I was a mayor activity
W. 3	294	"100 Vjetori" school(3)	10-14	"Design your school yourself" week	Leave free the mode of participation: a model, drawing, essay, poem, poster…
W. 3.1	25	"100 Vjetori" school(3)	10-14		
W. 4	92	"100 Vjetori" school(3)	10-14	Meeting virtually successful school buildings /evaluation of children's own school building	Visual questionnaire POE questionnaire
W. 4.1	25	"100 Vjetori" school(3)	10-14		
W. 5	25	"100 Vjetori" school(3)	10-14	Walk through assessment and Re-design proposals	Walk through POE/Video recording/ Discussions Draw solutions on map

The first set of the workshops was applied to children of different ages, while the last set is applied to a group of 25 children from 10-15 years of age.

In total, three school buildings and their pupils are the subjects of this research. The subject children that follow the schools chosen for the research are like ambassadors, representatives of children from all Albania and not only; some of them are of other nationalities. They are children with different social and cultural backgrounds. This criterion is thought to generate more complete and universal outcomes and to enable having a universal decision.

The first subject children were pupils of an international school in Tirana. It hosts children aged between 3 and 18. As a building, it has been adopted for children of these age groups from a building designed to raise leaders of the communist party in the past Albanian regime. It is composed of 30 classrooms, all science class labs, a library, a sportive field, an auditorium, a cafeteria and an outdoor playground. The number of children in a classroom is relatively low compared to public schools in Tirana. 18 children at the age of 10 from different countries of the world illustrated their innovative ideas as the free spirit of originality.

The second subject were the children of the school "Bajram Curri" in Tirana. This three-storey building of standardized communist period designs is one of those examples that has undergone several renovations and new additions. The number of pupils in classrooms exceeds 30 and there are scientific lessons' labs on every floor. New additions are achieved and conceptualized as a result of architectural competitions. This school hosts a considerable number of children from different communities in the country including Roma community. It is a school that offers extra lessons after the normal teaching hours as part of one of the several pilot projects implemented there. At the same time, it is a pilot school of a project to turn schools to community centers. About 60 children from 10 to 14 years of age contributed tot he establishment of a communicative participation.

The third subject is "100 Vjetori" school. It is located in a new district of Tirana. It is an area in which physical decline of the districts resulted from illegal constructions. Different cultural backgrounds dominate this district since it is a neighbourhood formed by the people flowing to Tirana city after 1990. The World Bank funded the school building construction. It has a maximum capacity of 900 pupils in 24 classes, 4 laboratories, 3 cabinets and a multifunctional hall. It is a three-storey building with little outdoor re-creative and common areas.

For the time being, despite the maximum capacity defined by the architects and governors, the building embeds 1400 children. Classes are held in two time periods. In the morning session, there are 24 classes, followed by 17 classes in the afternoon. Here laboratories, the library and the canteen are not in use due to lack of equipment, tools, books and managing staff. However, based on the features that this building possesses and for the achievement of the research goals, the researcher chose to apply the majority of the workshops in "100 vjetori" school. The change in the group of the participating children brought variety and alternative spatial qualities on one hand, but on the other hand, the decision to reorganize all the workshops with a specific group resulted in a communication novelty and in the increase of the children's participation capacity. As a consequence, despite the once applied workshops, the notion of reorganizing them is an active contribution to proposing trained participating individuals.

To sum up, the research firstly experimented in three different school settings and later the research focused only on one of them. Then the set of the workshops is re-applied to a specific group of children, being founded on reflective methodological approaches of the first set.

The following schema (Figure 4.1) summarizes the process and order of the two sets of exercises.

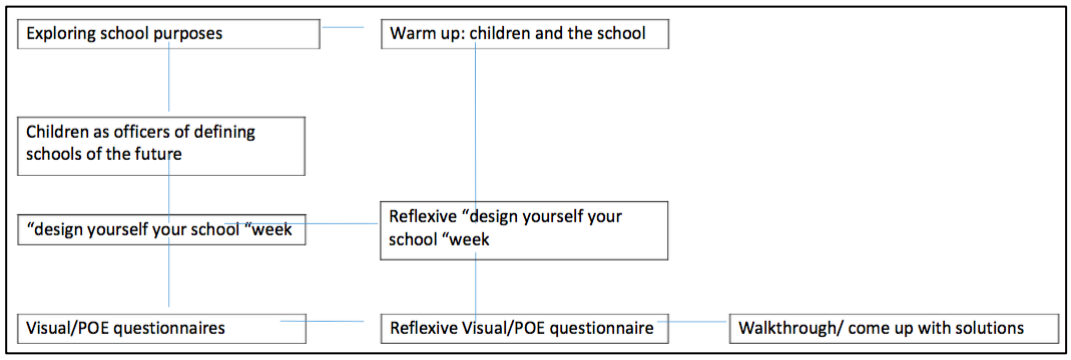

Figure 4.1 : Process and order of the two sets of exercises.

The researcher set beforehand the topics and the objectives of each exercise and workshop. The methods used supported each stage and apart from this, they reflected the previous steps. The users and their products inspired the researcher when she wanted to take the research one-step further. The above schema visualizes how the research uses exercises to address the results that come from different levels of participation in generative sessions that lead away from just reporting the findings.

4.1 Workshop 1: Exploring School Purposes

The very first research of this study was carried out as a pilot project with the aim of deepening the children's participation capacity and developing a good practice for planning and realization of the following workshops. At the same time, it was expected to find out what kind of spaces children are more attracted by and to familiarize the researcher with the language and behaviour she ought to have with younger ages. For this pilot study, 15 children from an international school were chosen. The aim, on such a selection, lies in testing children capacity to participate, which is a crucial key to achieving the purpose. A mixed group of children from different countries of the world was thought, and resulted, to be a good start for measuring the participation capacity. Indeed, it brought individuality and difficulties in working as a team.

The study did not take place in their own school building with the aim of sending pupils away from their school environment. It was a 5-hour development and creation, including a brainstorming on the purpose of going to school, drawings, wish poems and a model try. The young participants were excited about the involvement. Not only did the researcher observe and realize their excitement, but also their seriousness in involvement was a proof of this assumption. Workshop 1 was re-applied in the school subject 3 (Table 4.1). The first application is with International School of Tirana children and the second one with a group of children from "100vjetori" school 1.5 years later, as the opening workshop for a set of other following workshops. The outcomes showed the independence of children, despite guidance of the researcher, which classifies children's participation in this exercise between step three (tokenism) and four (assigned but informed) on the Hart's (1997) ladder of participation. Though children were told the steps how to proceed and what was expected from them, the distinctiveness of the way they think about spaces is notable in their suggestions.

4.1.1 The process

Aiming to practice children participation in the first subject school and train a focused group of children in subject three, a series of small-scaled exercises were conducted as an opening workshop of this design research. Children of both subjects were asked to collaborate among themselves to develop a participatory design

process.

Brainstorming

The very first task intended the children to scratch their heads and think what the school is for! In order to avoid the only predicted answer: for learning, we asked them to provide at least three answers to that question. This task aimed to make pupils think about the activities that should take place in a school building through a deep dig into their experience. Such an exercise implicates the spaces that the schools have according to children's perceptions. Within the same session, the children grouped the answers that were similar.

Drawing Proposals-Learning Areas

The results of step one led to the next step of the workshop, in which researchers asked the children to draw one space of the learning environment, and how they imagine it to be. Such an assignment intended to get some information about the learning spaces and how children visualize them. With the method of drawing, participants recorded the possible learning environment layouts.

Drawing Proposals-Fun Spaces

This step came with the suggestion of the children. They were more willing to draw fun areas than learning environments. The aim of this step is the same to the one where children drew the learning spaces. What would they like fun spaces to look like? What can be possible shapes, colors, materials, sounds and smells of the spaces?

Wish Poem

The children brainstormed on the things they wish to have in the school with the wish poem method. Such a method aims the "free flow of information" (Sanoff, 2013). Participants were equipped with boards where they were asked to rank their needs. They were asked to complete the phrase beginning with "I wish my school could..."

School Appearance/ Model

The creation of the school appearance was organized in groups of four or five pupils and the children were asked to propose what they would like their school to look like. It aimed the participation capacity and finding out the message of the school to the users. Moreover, it could measure child model making abilities.

4.1.2 Findings

As seen from the described process, the pilot study decisions and results are crucial for framing the research and construct the beginning of a participation language. Besides testing the children's involvement capacity, the process drew a skeleton for analysing the educational spaces in the other workshops as well.

By analysing the solution process of this workshop, the researcher pursues how to create a communicative, productive language with the children and demonstrates a deductive framework for the examination. In this context the findings of the brainstorming session, which was related to the school building purpose, are configured into three main groups: learning, having fun and understanding things through play (Figure 4.2).

Figure 4.2 : (On the left) grouping the answers of children (subject 1); (on the right) discussing on grouping (subject 3).

Participation of children in this step is critical because it seeks to find out children's interests, which could be translated into space. Among answers, there were responses that could not be categorized within a group. Furthermore, there are changes in the responses of children of two subject schools. Children of the first subject give importance to spaces related to having fun and spending extra time activities. On the other hand, children of the third subject give priority to education. This is an effect of the building they are using and the way they are using it. These exercises in fact go

beyond the children's expectations, they are about what Driskell (2002) locates in his conceptual framework as "Consultation", which is a good practice for "increasing the power of decision and affect change". In addition, indeed, the diversity of space components in a school building is present in all the children proposals. Children of all ages think their opinion as partners in taking decisions about the school areas is principal. They express it verbally, though the researcher did not ask anything about the importance of participation. The designers may evaluate their involvement as such by judging from the process outcomes. For example, children's vision about the outdoor environment of the school is expressed in the drawing of fun spaces (Figure 4.3).

Figure 4.3 : (left) fun space proposal of a child (subject 1); (right) fun space proposal of a child (subject 3), (courtesy of Floriana Hysi).

In both groups' findings, the diversity of the space shapes, multiplicity in the functionality of the spaces and the green constructing are deemed so important components in the indoor and outdoor design. When the indoor design is in search of functional and well-equipped learning environments, the outdoor design is tightly connected to the fun spaces. Another important emphasis is on the need of technology, which does not lack even in the proposals for the schoolyards.

Another contribution comes from the last step. Children experimented and put efforts into trying to visualize a three-dimensional outer appearance of their dream school building. The diversity of results was enormous in typology. Among results, it is seen that the younger ages are seeking for other than geometrical results. For instance, in the first subject, which was composed of 10-year-old children, is observed a huge range of alternatives compared to the subject 3 children who came up with regular geometric forms (Figure 4.4).

There is also another variable that might have influenced children of subject 1; the diversity of the building typologies that they have visited out of Albania.

Figure 4.4 : (On the left) School space proposal of a child (subject 1); (on the right) school building proposal of a child (subject 3), (courtesy of Floriana Hysi).

Similar results are revealed about the entrance of the building, they are numerous as specimens, but the preferences are dominantly central and large in scale. As main elements of the circulation, halls and staircases are preferred to be high, wide and full of light.

The very truthful feedback can be taken from the classroom environment. Children know very well that space and dare to offer alternatives in designing. They propose interesting spaces for feeling more comfortable (Figure 4.5): for example, individual reading and studying spaces and not only; even spaces that can be used to spend free time.

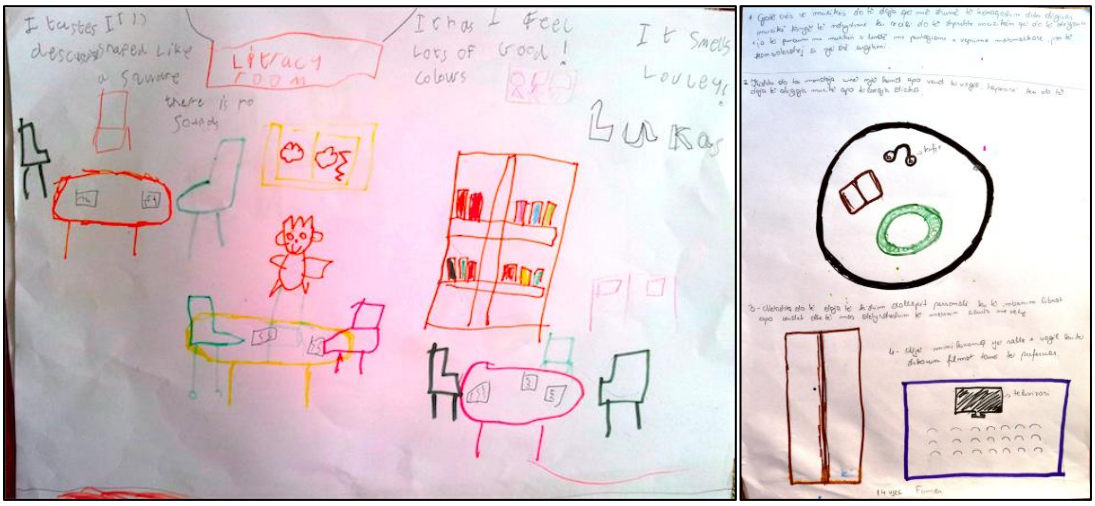

Figure 4.5 : (On the left) classroom proposal of a child (subject 1); (on the right) proposal of a child for the classroom (subject 3), (courtesy of Floriana Hysi).

Sitting in a corner where no one could disturb them and listening to their favourite music, is a comment from a 14-year-old girl of the third subject school. They are willing to collaborate and express their thoughts with the beliefs that later architects could translate them into active concepts.

Application of the workshop in the first subject was a good experience to elucidate how to make children more involved; while the application in the third subject was a warm up for the other workshops that followed.

Children's spatial approaches are more like problem solving. They evaluate and get a solution to the identified problems. "I wish my school…" poem (Figure 4.6) in this respect has played an important role. Besides finding out children's desires, it put forward even the spaces or facilities that their school building misses.

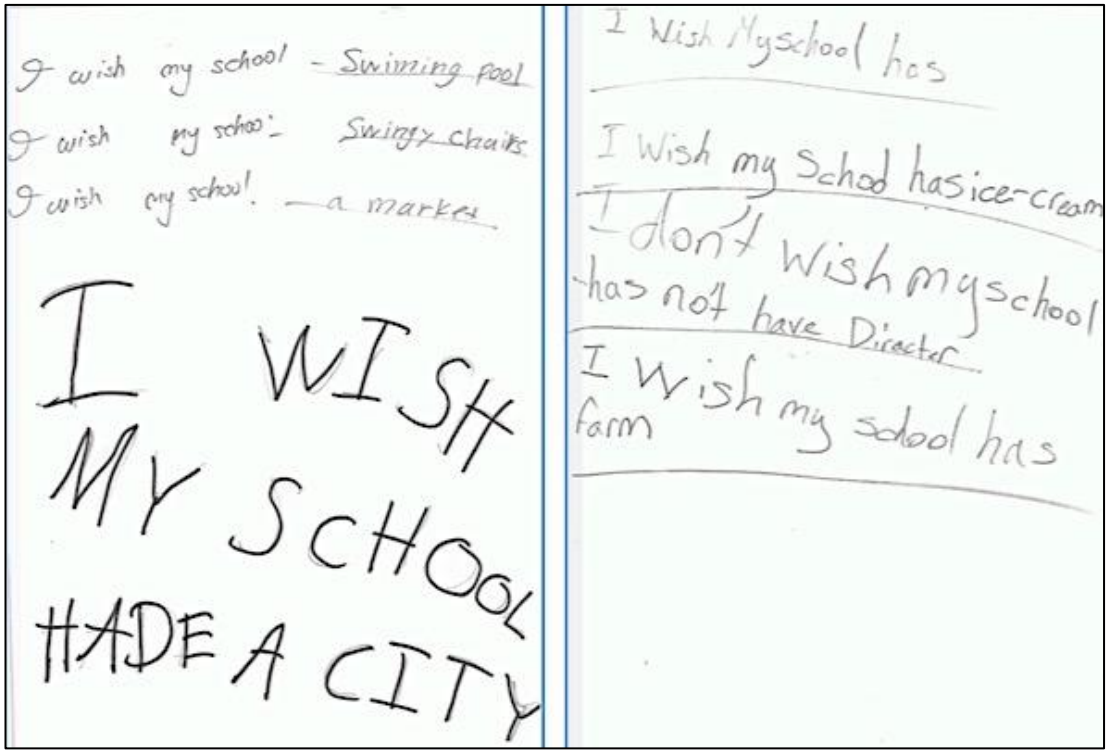

Figure 4.6 : 10 years old boys expressing their thoughts for the school buildings. (Subject one on the left, subject 3 on the right).

The children would like to have everything in their school spaces. They would like to have plenty of outdoor spaces, learning laboratories, music rooms, swimming pools, sports fields, cinemas, etc. Their emphasis was not only on the spatial dimension of the school building but also at the school system. Need for less courses and more freedom where among dominant desires. A ten-year-old boy says that indeed the school should accommodate a city.

4.1.3 Discussion

In these two workshops, the first and third subjects' results revealed that it is not the aim that shows the path to the children, but it is their belief in the final application of their thoughts that motivates them. Collaboration among peers, despite their reluctance to works as a group, and the outcomes they propose across the stages, provide a whole and complete view of their educational space perspectives. Verbal and visual participation methods chosen for this workshops function as an introduction to the following workshops, in the first set for the researcher and in the second set for the children.

In the first subject school, children of the same nationality grouped together and in the third subject children of the same age gathered together. In both processes, a lack of willingness to work as a group was noticed. This situation was especially evident in older ages. At the same time, older ages preferred being part of more touchable results than creative and imaginative works. They expressed their excuses by saying "I am not good at drawing".

The venue where children participate has a particular effect on children's motivation. Moving away from everyday used school building to have a participatory workshop is likely to be more productive. Indeed, the success dependence on workshop aim, while task and the school curricula has its own significance. The knowledge about these realities relies on increasing the participation capacity and on building an effective communication language.

4.2 Workshop 2: Children as Officers of Designing Schools of the Future

This workshop is carried out at "Bajram Curri" school in Tirana, which marks the second subject of this research. This school building has been chosen for several reasons.

First, it is among the standardized typologies, which has undergone several reconstructions and new additions (Figure 4.7). Although it has changed through the years, the designers and the staff dealt with reconstructions seems not to have taken in consideration children opinions rather than trying to bring solution to the overcrowd that characterizes this school building.

Figure 4.7 : Bajram Curri School plan and view, (Tirana Municipality Archive).

Secondly, this school is the good example the whole staff, both administrative and teaching has showed in including and giving the learning opportunity to children of all backgrounds regardless of color or origin. It is the only school in the city, yet in the country, where Roma children are equal in number with other pupils.

4.2.1 Process

This research is an extension of the previous study to test once more the pupil participation, this time, in their own habitat. The study asserts that children are partners, even though the task is assigned to them. On the other side, the teachers and the school director had an active role in cooperating in selecting the children groups and asking them to participate. A total of 76 (aged 10-14) children accepted collaboration. They were invited by teachers to participate and instructed by researchers about the activity, which was a kind of a one-hour meeting in a regular class time in their own classrooms in the school (Figure 4.8).

Thus the researchers travelled among the classrooms, explained to the children the aim of their participation and noted down the brief conversations done among children themselves and pupil-researcher talks.

With the topic of the dreamed school, children drew, wrote down or listed the features of the school they would like to perform courses. Moreover, they were asked to fill out the form of" if I was a mayor". They were in no way forced to participate. Firstly, researcher invited them to participate by explaining the topic followed by delivering the authority to them.

Figure 4.8 : Work in process in subject 2 school (Courtesy of the researcher).

Based on the fact that the research was upon the will to be partner and to collaborate, at the beginning of every classroom visit of different levels, an open speech was made to assure participation in all the categories of the workshop.

The table below (Table 4.2) summarizes the tasks (methods), the participants' age, pupil's participation categories and the researcher's extractions for each.

Table 4.2 : The process of the workshop (Subject 2).

Method	Age	Accepted/ Rejected	Comment
Questionnaire	10-13	√	Young ages more willing to participate
	14	x	Older ages are lazy and do not like teachers presence while participating.
Draw imaginary school	10-12	√	Worked well with this group
	13-14	x	Pretended not to know draw well
Put a name to imaginary school	10-13	√	Expressed the concept imaginary schools
	14	x	
Animal at school/ what kind would you prefer	10-13	√	Enjoyed
	14	x	
If I was a mayor activity	10-12	x	Not pretty sure to understand the concept
	13-14	√	Categorize themselves as grownups/ contented to participate

This exercise was a starting point in understanding children involvement in design in a good relation to their age and level of participation. Their engagement was personal but it can be translated to collective or research benefit.

4.2.2 Findings

The analysis of participation activity should examine all its constituent tools: drawings, written materials and researcher's notes together with the observation. In this qualitative research, as in other participation activities, children's voice is a priority. The researcher and the teachers of the school did not ask them to participate; they were invited to be active. Children responded to the invitation differently. Younger ages drew freely and explained their ideas without too much effort. Their readiness to help is appreciable. Older ages, instead were in need for motivations. They require a confirmation of their opinions being considered. The researcher had to assure that being involved in a research would be a good start not only for understanding the situations in schools but also for their consultation acceptance. Therefore, children got convinced that their views and contribution is half the way to implement. In this way, pupils feel powerful, without barriers and comfortable to collaborate. As a boy of 9th grade (14 years old) complained, "you come here and want us to raise our voice, but in case the things we propose are not considered, there is no point in assisting."

It is obvious that this research was a process of dialogue. Children are direct in their talks. The researcher asked them about what they think immediately after they hear the word "school". Accordingly, school, as accepted by all, is defined not only as a learning or teaching space but also as a space to have friends and have fun.

The concept of outdoor environment is treated widely in the "if I was a mayor" activity and in young kids' drawings. The model of the school they propose is in the middle of the greenery. Open areas with pools and playgrounds are spaces that all ages support. The love that children have for animals is reflected in their proposals as well. They suggest school building conceptualized as farms. In this way, they would help and care about different animals. This demand is dominant especially in the young aged kids (Figure 4.9).

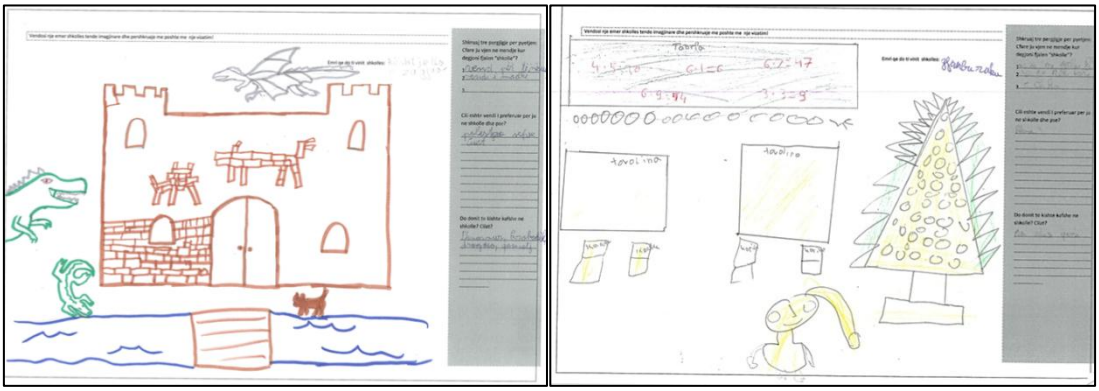

Figure 4.9 : Children proposals for the school buildings.

Technology is another inevitable asset of the youth, at least for the time being. They think that it is more than a desire, it is a need. “Moon School” is called one of the schools proposed by children. The building is robotic and buttons command everything in it.

Unavoidable is also the influence of the cartoons with kids. Such an impact is present conferring to children’s gender. Girls propose girlish buildings such as “the school of WINKS” (a cartoon movie for girls), while boys propose things for boys such as fortresses (Figure 4.10).

Children give specific importance to entrances in the building, it is considered as entering a safe place for all. “We enter our world” says a 12-year-ol boy who continues by saying that “this place belongs to us, though we are not allowed to use it so.”

In the workshop, there are no clues about the interior of the building, but enough information is obtained from “if I was a mayor” and labelling the school with a name. The latter gives indications to the possible scenarios in school building design.

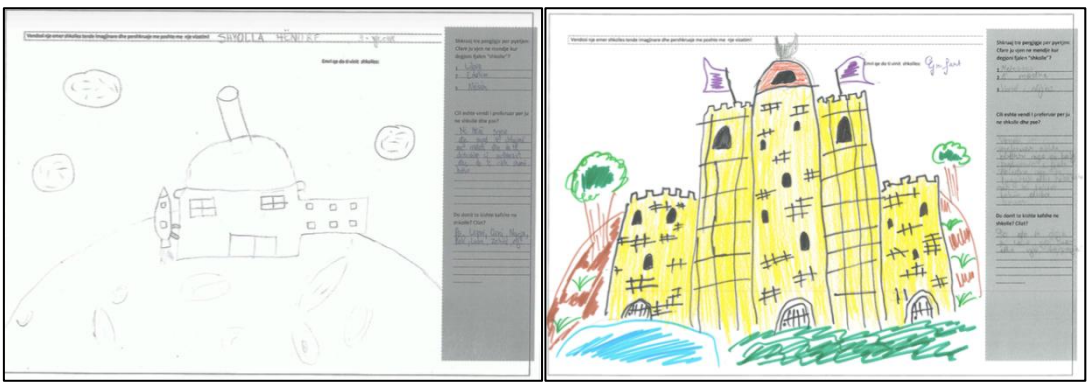

Figure 4.10 : Moon school on the left, fortress school on the right.

Based on this participation exercise, the results describe a holistic view of children's thoughts for different spaces. Accordingly, the classification of the answers provoked by the methods is illustrated in the table below (Table 4.3).

Table 4.3 : Proposals of children as a result of each method implemented.

method	nr.	age	Proposals
If I was a mayor	33	14	Need for green areas, Gym, parks, pools, Security in buildings, Playgrounds, Heating system More free time, Library
School name	43	10-11	"Ballet school", "Ice cream", "Moons School", " Miracle", "The Best Angels", "Two Princesses", "Childhood", "Our Dreams", "Greenery", "Magic School" "Greyfort", "Training School", "Candy", "Smart Castel", "Computerized School" "Peace and Happiness" ,"Fun School"
animal	76	10-11	Dogs, Cats, Pigeons, Horse, Dinosaurs, Lions, Eagles, Rabbits, Turtles, Monkeys, Pandas
drawings	76	10-14	

The results of this workshops brought considerable contributions to design concepts. Although, the methods applied were not based on a Post Occupancy Evaluation tools, they revealed contextual information about the school. The children's feelings and experiences in their own school was indirectly present in the results.

4.2.3 Discussion

The study of this exercise prompted the researcher to focus on one school building only and to deal with different steps of participatory design by experiencing the ladder of participation together with the children. The process and the results contributed to the design of the research concept. The ideas of focusing on one school and repeating the workshops from groups participating at will to an assigned group of children are effects of this workshop. Along with POE adopted methods, the following workshops would give unique involvement of the children. The workshop served as a guide to the refinements of the following workshops. How?

This study has provided enough information to the researcher. Firstly, the selected age group is a good sample group that could give enough information about what is asked by designers. Secondly, this workshop showed the researcher that nowadays children share quasi-similar thinking attitudes and focusing on one school with a population of children of highly different backgrounds and coming from all Albania, would be easier even in terms of cultivating participation soul.

4.3 Workshop 3: “Design your school yourself” Week

In Tirana, there are 59 public schools of 9 years’ educational cycle. In the late years, 27 buildings have been reconstructed and 7 new schools constructed. Buildings are equipped with a certain number of classrooms for lectures, a gym for physical education and spaces that are not present at every school building such as cabinets, libraries and doctor’s rooms (Science, 2012). Among the new schools in Tirana is “100 vjetori” school in Kamza region, which started its academic life in 2012.

It is organized into two three-storey wings. All the classrooms for teaching are in one wing, while the cabinets, the library and the multipurpose hall are in the other one. In order to have a closed schema, the architects have designed two other wings; one is the gym and the other is a colonnade passage that connects the main wing (entrance) to the gym. The gym is double height space, while the colonnade is one-storeyed but accessible at the top from the first floor (Figure 4.11).

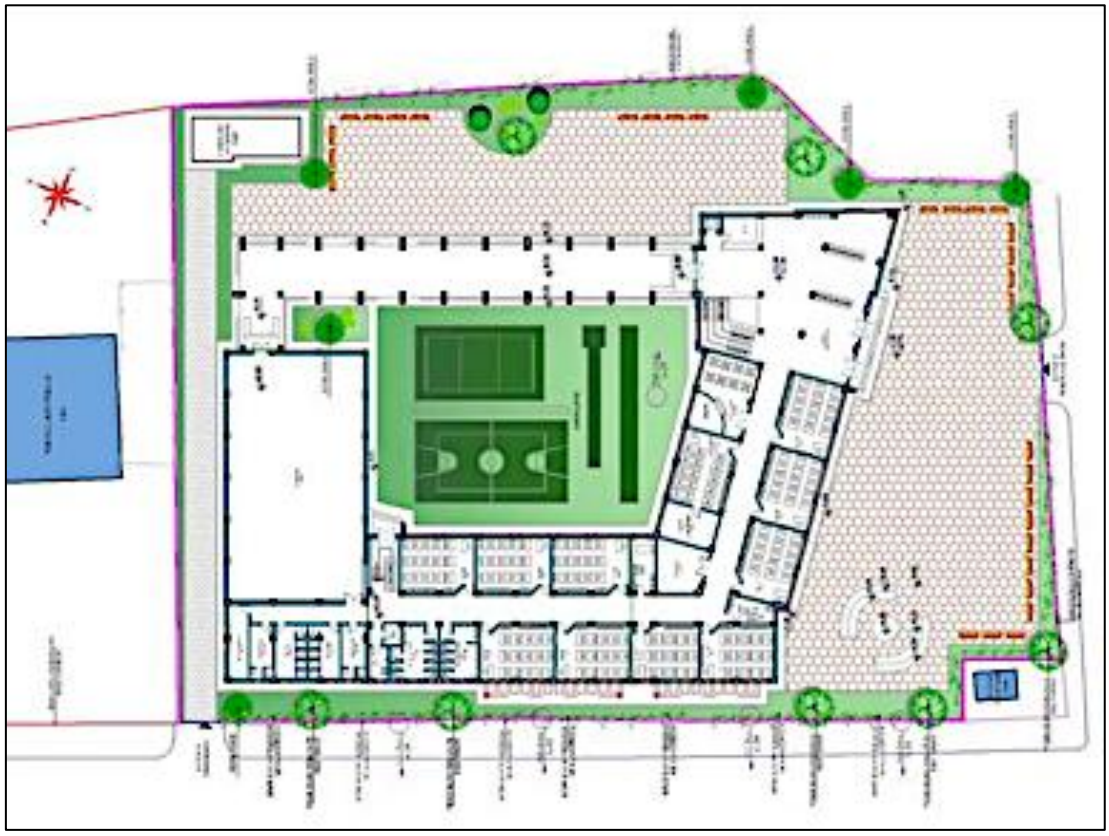

Figure 4.11 : Ground floor of “100 vjetori" school in Kamza (School Archive).

The entrance is spacious and full of windows, which maximizes the daylight of its corresponding wing and this social part of the building. The main entrance hall has the most spacious area in the indoor environment. Circulation is into the corners of

the main wings, and toilets are near to the secondary circulation area but on the learning space wing.

Seen in terms of environmental system the building does not offer much. There is no heating and no cooling system in the building. Such conditions, unfortunately, are present in all the public schools of the country. Actually, architects have designed and proposed a heating system but it is not yet affordable by the state.

Taking in consideration all these issues, this workshop and all the following activities explore how children feel about the school building, how much they respect and look after it. Thus, an objective of the workshops is, after all, to increase the sense of ownership as a benefit of the participation process.

4.3.1 Process

In the 9-year education system, the schoolchildren vary from 6 to 15 years of age. This workshop was open to all the pupils of the school and it lasted one week. Posters on informing the children about this exercise were part of the everyday school environment (Figure 4.12). They were spread all over the halls' walls. On the other hand, teachers encouraged children to be part of this exercise. Furthermore, the exercise exhibited an attempt at exploring the unused spaces in the school and proposing activities in them. At this step of the exercise children had to reflect on their own school.

In order to foster participation of children on one hand, and leave them free of complexities, on the other hand, the methods of participation in this exercise were supposed to bring out children's needs and interests and their free spirit of involvement. The main ideas that guided the participatory exercise were as follows:

a) Within the frame of a conversation with the school director and teaching staff, the collaboration possibility was discussed, all in terms of teachers to inform children about the exercise. Multiplicity of participation methods was considered to be applied such as giving children participating duty to ensure their participation or leaving at their will.

b) Children may have a wide understanding of interest, but teacher influence is a good factor to push children. Their potential ideas may come out from different courses.

Figure 4.12 : Poster displayed in the school building.

c) Mode of participation was given free, yet every course teacher was instructed to offer them their own education model. For instance, literature course motivated children on essay writing, art class on drawing, etc.

The same workshop was applied at the same school one year later to a group of 25 children. The difference lay in the way of participating. Children were introduced to the workshop the same way as the previous year, but they were asked to be involved in any of the categories that they wanted to as a homework task.

As expressed earlier, the idea is to train children in participation and to try to break the barriers for a sense of ownership of the building. Additionally, another intention is the improvement of participating cultures as a great opportunity for social and physical change.

4.3.2 Findings

This active participation activity had the largest number of involved children in its first application. The inclusion of the children in this activity brought variety of participation methods as well as suggested ways of inclusion in different stages of the design. Accordingly, the participant volunteers dedicated their proposals and opinions for planning and evaluating the school building. The table below gives clues about the number of participants in the first implementation of the workshop and the way children had chosen to participate.

Table 4.4 : Number of participants and the method they replied to the invitation where the whole schoolchildren were asked to participate. (Set 1).

Nr/participants	65	124	2	2	1	8	99
Method of participation	essay	drawing	poetry	Model(from the 2nd group)	poster	Open ended form	Daily activity prompt

The second group of 25 participants chose to participate in fewer items. This might be because of the small number the group is composed of or because of lack of interest. Practically, few of them brought some drawings and few of them brought some essays. Their proposals are evaluated together with the first group. The reason for merging them is that the results are found within the first group works.

Apparently, not all participants enjoyed being involved. Teachers' advice in younger children is considered an obligation, which explains the lack of full attention and consideration to the process observed in some drawings. At the investigation stage, this research focused on three different interests: the interests in how different age groups conceive the school building; interests in using this method of participation to

find out what children propose; and the interest in necessary spaces. The posters spread in the school building and the aim of telling teachers to encourage children, seek to find out "what attracts children". All the attempts and instructions aimed children subjective reaction toward school building rather than art works. In particular, the researcher tried to warn teachers not to influence what children focus on and to let them have a free choice of preferences and opinions.

There is no evidence of the way teachers framed children's involvement in the workshop, and whether they forced participation or not. From the stuff submitted, it is clear that they have spent much more time than just an hour, which is the regular time a class takes.

For teachers this workshop was "a good organizing process for raising children's awareness". However, in this chain of communicating the exercise from researcher to teacher and to child, it is the context that children express their will in participating that matters. When the resources of all the participants are mapped, a pattern of methods, gender, age and proposals appears.

Essays

The essays provide a good opportunity for participants to inform and put forward critical issues for better future schools. From a personal perspective, with roots in literature classes, it allows children to express their voices and thoughts freely. In this research, collaboration with the teachers resulted productive. Within the literature class, teachers encouraged children in writing and contributing to the workshop. At the end of the week, 63 children from 11-13 years of age submitted their stories. As participants, 10 children were 11 years old, 21 of them 12 years old and 16 of them 13 years old. Amongst them girls' contribution (47) is higher compared to boys (16). Under the title "the school that I would like" pupils generated ideas on what they wanted for their schools. Participating children proposed areas, spaces for transforming their school environment into a more inviting and educative place. The "dreamers" dreamed mostly on what they could not have in their present school. Within this school building, it is seen that there are no computer, chemistry, physics and biology laboratories. The need for these kinds of spaces is reflected in most of the essays. Compared to other existing schools, despite the fact that the building does have a gym, children went beyond and described their gym fully equipped.

Reflections on sports activities gives indication of considering school as a campus and not only one building. Pupils express their needs for football pitches, basketball and volleyball courts, and even tennis courts. This idea of campus, though not straightforward claimed, is also sensed in their search for outdoor playgrounds and large courtyards. Pupils addressed their needs for stationary shops and canteens within the school boundaries. For the time being, schools cannot manage such spaces, but on the other hand, children need to eat and shop safely instead of buying goods from ambulant sellers next to school fences.

Essays are good indicators of communicating children's will for a better life quality, for their life to be changed. For example, a child dreamt about a film-producing center as a design concept of the school spaces. Inspired from his proposal, it can be said that children should fill their afternoon time meaningfully. Together with children interested in art, music and with their desires for acoustical rooms and concert halls, new generations may be raised as talents and artist with more to say. It is evident that school buildings are conceptualized very differently from what their building really is. A child asks for "a school with different geometrical forms", another one for giant windows and someone else for silver plated walls. Colourfulness together with large and high halls expresses a quite sophisticated understanding of school spaces. The way they articulate their thoughts shows a good understanding of this research study and they expound their concerns about their ideas not to remain only on essays. They dream of schools that send them far from everyday reality. Accordingly, such a transfer can only be realized with the help of technology.

Filtering out what the children wrote in their essays, a number of building features can be figured out; one essay attracts attention due to the fact that it looks for movable ceilings according to weather conditions; two of other peers request changes in learning tools, for instance, they propose not using books at all. Instead, they think of tablets or other technological tools.

All these suggestions are good for collecting and producing a set of ideas for creating school briefs on new or reconstructing cases. The results present not only a wide range of needs and design requirements, but also a kind of reaction toward the school policies. By extension, the children's participatory program was seen positively by

school staff as well. They think such activities raise the children's awareness of their voice being heard, which is translated later into responsible adults.

Drawings

Visual notation is a tool to show others not only physical properties of the building, but at the same time, how the building is perceived. In the drawings of the children, the space perception is dynamic and the methods that express its understanding are various in number and type. In the present research, pupils were encouraged to determine characteristics of the imaginary school they would like. Their products show an influence of the age they represent and the present school building, whose prints are an issue of reconnaissance in the proposed drawings.

A high number of participants have used this mode of communication compared to the ones who proposed essays. 124 children from 10-14 years of age submitted their thoughts through drawings about their dream school buildings (72 girls, 52 boys).

In general, illustrations are personal and drawing ability is required in order for them to be as explicit as the essays. After all, in this analysis, there will be a closer look on how the drawings communicated children's interests toward research interests. Basically, 11 and 12-year-old children's works stick very much to the present school building image. They have generated their own school and no other information. The same situation is valid in some of the works presented by 10-year-old children. Within these age groups, (43 out of 100) pupils added other elements to their drawings, apart from resembling their dream school to the existing one.

In the drawings' contents there are interesting findings about the sensitivity children have to recycling, which is seen in illustrating recycle bins according to materials. At the same time, they are very much in need of lightening the building surroundings. Lots of trees and flowers, water elements such as fountains and swimming pools and the girls' tendency to create a more like home environment are additions that clearly serve the exploration of interests in the activities of this group of children (Figure 4.13). On the other hand, 5^{th} year children of age 10 could not fully express the impact their school building has, a situation that makes them propose other building layouts. The similarity coincides in colors and the floors of the school building. Apparently, their focus is more on colors and easily drawn geometrical figures.

Figure 4.13 : 10-year-old children proposals for their dream school building.

Among the drawings, there are contents that are more likely to express a scenario, a story. Inspired from animated movies children proposed school buildings resembling cakes, dollhouses, butterflies and windows in the shape of stars and hearts (Figure 4.14).

Figure 4.14 : 10-year-old children proposals about the dream school building.

It is quite understandable that some children had difficulty in representing the three-dimensional form by confusing it with façade or top view drawings. In the same age group, there was a collage proposal with the spaces that they wanted to be part of the school.

13-year-old children seem to have enjoyed the process. From this age group only the ones who have some drawing abilities seem to have submitted a work. Compared to the handled essays of the same age children their number is smaller in graphical representations. In this group, it is noticed that children give a try at drawing plans. This builds up a clue about them seeking to understand spaces better. However, what is seized from the examples children of this age have produced, are the difficulties in perceiving proportion and hierarchy. The sizes of the spaces are all the same. Then

again, they do not link their proposals with their own school building, but, on the contrary, they are after something “unusual”, says one of the children that submits his work directly to researchers. Out of 9 proposals from this age group 3 experimented in a different way. One is symbolically proposing the writing “school” where each letter represents classes with stairs, windows and doors that help to connect spaces (Figure 4.15). The need for greenery and open area is present at all the drawings and the design of a campus is a scheme that is repeated (Figure 4.16).

Children go further and propose even forests in their drawings. The ask to locate their school building in a space dominated by trees.

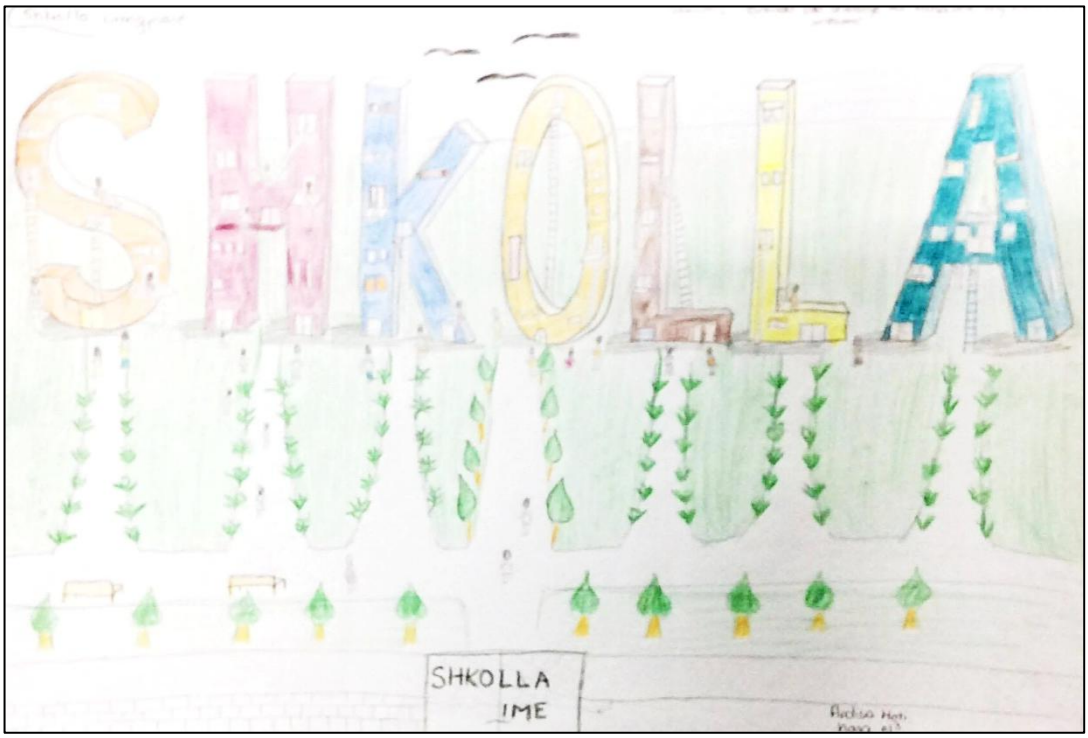

Figure 4.15 : School as a symbol. Proposed in the shape of letters (“Shkolla” is the Albanian for school).

The elder participants (14 years old) of this one-week research process are very much realistic in their approaches and drawings (Figure 4.17). Their representations are detailed and expressive. Contrastively, these graphic works show a closer concentration to inner spaces of the school. Moreover, what they propose are more like home environment. On the other hand, in the case of reorganizing the workshop (set2) with a chosen group, this age group showed no interest in participating in this category with the excuse that they are not good at drawing.

Figure 4.16 : School environment as a campus.

To have brief concluding remarks of the drawing representations, and judge them, it can be said that they are faithful but conceptual. Conceptual works show the most how the school building should look like with clues on activities and spaces.

Pottery

Poems as proposals were only two, in total. The difference that they bring compared to other methods of participation is related to the pupil's feelings. In the poems, the two participating girls have written the nice feelings they have and want to experience in the school. They mention friendship, education, nostalgia, happiness, smell, sound and even the dynamism in the spaces. Poems seems to have compensate and analyse whatever the children couldn't express with drawings. Feelings, memories and other intangibles are freely noted with this method.

Posters

Poster representation, as a singular case submitted, is more like a collage of the school they would like from the images that children have found in the internet. It is worth mentioning that the poster presented a nice method of working in groups.

Every child in one of the classrooms (29 children, boys and girls) had researched and collected the information that they thought is important for a school building.

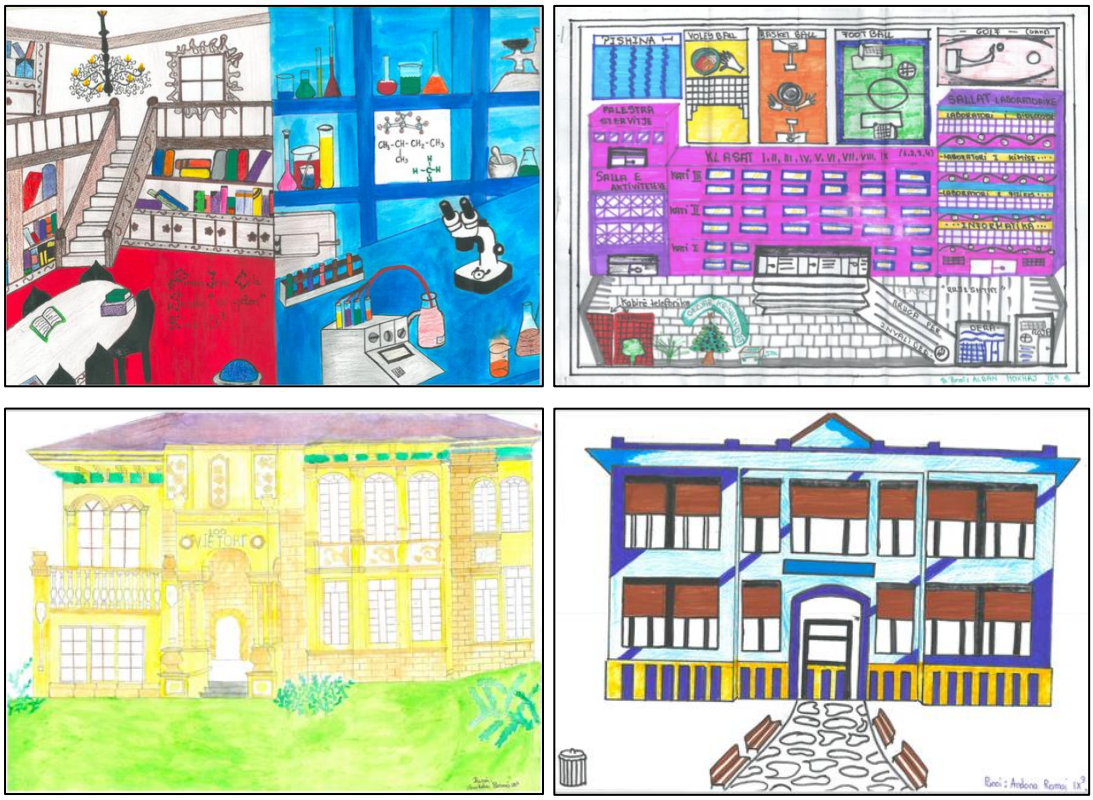

Figure 4.17 : 14-year-old children' works.

They all together produced the poster in the 70-100 cm layout format. There can be identified the main spaces a school building should have: laboratories, sport areas, computer labs, cafeterias, etc.

The second group (set 2) did not apply in this category.

Models

Making a model is not an easy job. Children should understand 3D representations in order to propose such a method of participation. The first group did not apply at all with such a technique. The other group (set 2) on the other side felt they had the enough information to propose something. The previous workshops had made them confident of trying methods other than the "traditional" ones as they state about essay writing and drawing methods. Nevertheless, they did not feel comfortable enough to bring individual proposals for a new building. They had worked in groups and the results remain only an attempt. The two proposals are two geometrical bodies; a

cube and a pyramid. Once more here is emphasized the kids' affection for colors (Figure 4.18). They have called their proposals "School of Colors".

Figure 4.18 : Main facade (left) and back facade (right) of the 8th and9th grade children proposals for a school building of their dreams.

The other proposal was a regular rectangular prism with not too many clues about the environment. It was a try of youngest children (aged 10) to bring something three-dimensional.

Open-ended forms

Within civil education, a class of 11-year-old children were given an open-ended form and asked to think and find out spaces within their school, which are out of use, and to propose activities that can be done there. The participation of only such a group of children was restricted by the school administration, who offered the possibility to do such a research only with that group of children within the class limits. Participation in number was low (eight pupils). From what they have written, it comes out that courtyard is among the spaces where they prefer to organize different competitions; such as song, dance, painting or role-playing. Interesting is their will to have an exhibition center where they can exhibit different school competition products. For fear of children, losing their interest in the following workshops this step of the study was not applied to the second group of children. It was intersected with the final workshop.

Describe your daily activities prompt!

This exercise aimed to find out what kind of activities children do within one day to find the possibilities of using the building even in the afternoon as a community centre. Such an application would help to produce appropriate spaces for respective

activities. With a lack of communication with the teachers, the physical education teacher instructed children to participate. Despite a very high participation rate (99 children), I guess that none of them was truthful about their responses All the results were physical activity oriented. Unfortunately, what they reflected on paper seemed to be for satisfying their sports teacher. The same situation appears in 49 drawings where children have indicated ideas about their dream gym. The clues about daily activities were made clear and intensified in the second group of 25 children. They performed high and it was a good example of collaboration for setting goals about the needed spaces of the building.

The data show evidence that the children are willing to use the school environments more freely and with extended hours. Their afternoon is spent at home with no activity. In a patriarchal society such as this of Albanians, the male figure is different, so the boys of the older ages go out in the afternoon and hang out with friends. Their daily routine shows an emergency for the breaking away from this dull time and creating supportive spaces for them and for their engagement.

The 25 children selected for the second group workshop had been part of the first attempts, which unfortunately did not result successful. The researcher's aim was to motivate them to participate without boring them. Consequently, this step was skipped for the second group of children.

4.3.3 Discussion

In a traditional school system children are strictly controlled, (Leander, 2002)and Albania is not an exception in this reality. Pupils in this country as all the Albanian society were controlled for about 50 years by the communist regime and still now, children experience an authoritarian schooling. They are controlled in curricula, time, space and almost everything within the school building.

In this cycle of the system of workshops both methods are tested; they are asked to collaborate by letting them find out their own method and on the other side, they are assigned as partners and are asked to participate in the different assigned categories. The participatory results of both workshops affected the whole research project vision. However, the context and the aim were the same for the workshops and they gave clues for the existing building and the dream building. They helped in forming

an opinion about the methods of children involvement corresponding to age and somehow to gender.

Many of the ideas that are presented in this phase of the research such as plurality and the diversity of the involvers in the fields of essay writings, drawing and open-ended form of participatory approaches, have influenced the development of an effective participatory model. Because in Albania participatory design is not a common process, it is necessary to experiment in designing and developing a language of participation for school design.

In the case of the project open to all the schoolchildren (set 1), the researcher-teacher interaction and the open invitation to collaborate, are illustrated as a powerful shaping method. Participants have the desire to say and do something about their school. The products vary according to children's potentials. They presented individually the dynamism of the existing school building together with spatial dynamism of the imagined school buildings. Their experiences brought unique values, which a researcher cannot achieve on her own. Children had autonomous and individual anonymous decision in participating. Alacrity about contributing to school design improvement is observed in all the results. Such a case was particularly noticed in the first workshop. The second group, (set2) on the other hand, showed little interest in becoming involved, because they believed they do not have the proper skills and at the same time they were sceptic about their thoughts being considered.

However, what the researcher grasped through both processes is that a good dialogue is definitely needed.

As seen from the second session of the workshop, ability in participating depends on children's skills and the characteristics of the creative process. Questionnaires and open-ended forms are among preferred ways of participation. Yet, together with the essay writing, they might provide a way of engagement to achieve data on existing schools, future design and design processes.

Drawing and poem writing, which certain children consider a matter of ability, may be suitable tools of communication between adults and children of especially younger ages. This workshop gave good indication of other ways of participation such as posters. A poster is a product of group work. It gives clues in case there is a

need to use posters and collages. It is a good instrument to communicate in groups. Younger participants use every method in this workshop effectively. Other practices are explored in the coming workshop.

4.4 Workshop 4: Meeting Virtually Successful School Buildings and Evaluation of Children's Own School Building

The following set of workshops plays an essential role in encouraging participation and excluding beliefs of architects that children are not able to design without training. They show that the children, with the help of the designers, have the chances to learn fast and give quick feedback. All to be used as design data. Firstly, a visual questionnaire and then a POE questionnaire is conducted in two different groups of children. All the four steps were carried out at "100 Vjetori" school in Kamza, Tirana. Participants in the first set were 92 children of varied ages and gender. The second set goes in line with the other previous workshops: 25 children, 5 from each age group from 10-14 years of age.

This step of the research showed that children and adults are good co-operators in case the language is settled carefully. Adults and professionals provide children with learning and designing clues by training them. Pupils, on the other hand, share experiences and give data to be used when necessary.

4.4.1 Visual questionnaires

The aim of the researcher for this set of questionnaires focused on two main goals; first to deepen the understanding children should have for the spaces they belong by offering them wide alternatives from different countries around the world, and, secondly, to measure children participation capacity. In the second set, it goes beyond measurement: it measures the treated capacity. It should be made clear again that the children are not spontaneously selected but there is an agreement between them and researchers for a continuous set of workshops. At the end of this phase is supposed to find out the differences between assigned group of participants and the collaborators.

Other objectives of this stage are building up methods and exploring what kind of spaces children are being attracted. Moreover, it helps in providing information about children environments. To reach results and apply the questionnaire, collaboration

with the school staff was obligatory in both cases. The first questionnaire intended to introduce pupils to the different school typologies, thus encouraging their critical thinking imagination. It was based on visuals of a research done by Rotraut Walden (2015), who has prepared 24 examples of innovative schools from 11 countries and 5 continents. She argues about the ideal schools of the future, though she says there is no such a case in the present, there are some, which are pretty close to the perfect one (Walden, p 245).

The schools that Walden has considered in her study are categorized upon some concepts. Schools designed with the help of participatory design, schools that fulfil requirements of information technology, schools that are accompanied by "learning landscapes", school buildings where you feel like home and the school designed as a social process are five issues of school designs proposed. The researcher used some of those buildings in this study as good examples of organizing the visual questionnaire. It may be a coincidence that these concepts match the findings and results of the above mentioned workshop organized for children about “do your school yourself", In this workshop, the children’s essays and drawings showed considerable similarity with the Walden vision. Such a happenstance was a key to deciding about the thematic structure of the visual questionnaire.

Hence, in line with the concepts of Walden’s research, five school buildings were chosen and two more schools of the local context were added. The first one, a successful example, located in the city of Shkodra, was designed by the Italian architect Francesco Scardaccione and the second school, is the school where all the questionnaires, workshops, and interviews were held during the research.

4.4.1.1 Process

Organization of the visual questionnaire aimed, firstly, to raise the awareness of the children that good designs could/should be part of our context and, secondly, to position their school building by measuring their sensitiveness about everyday used spaces. As the order of the task, all the presented schools were blueprinted so that firstly, the children could have a general view of the school building, and then it was gradually passed to views from inner halls and classrooms.

This part is organized as a multiple-choice section where visuals about which kind of school children prefer and specific spaces within and outside the school environment

are among their preferences. It means that the visual questionnaire is organized into two sections; in the first one, the aim is to find out the preferences for the main spaces of school building and in the second one to find out preferences for some complimentary spaces. If the first section of the questionnaire addressed children motivation by stimulating images and ideas about the school general outer view, inner halls and classrooms, the latter was about other spaces of school components. Though the images are not from the first section, school buildings they are a good prompt to inspire children and to find out about their preferences. Their affection to the specific spaces in the building is revealed explicitly in the questionnaire.

They were given images of a variety of learning spaces aiming to tell children that there is not only one kind of learning space: classroom. Another group of images was about where to spend free time and read. This was about making them think more than the halls of the building. The last prompt was about the lunchtime spaces. This category is totally missing in the Albanian public schools.

The adjectives used for the measurements of the visuals are adopted from the Sanoff's (2001) research on school assessment methods. He uses a number of adjectives in the visual questionnaire sections to make space comprehending and evaluation easier to the children. When this work is applied to the second group of 25 children the adjectives are re-adopted according to the results of the first application.

Children had an hour to fill in the questionnaires by evaluating school building photographs, which were displayed by the research group in the walls of the classroom. With the help of a set of pre-given adjectives, children are asked to evaluate/ rate their degree of enjoying or disliking the building with its composing spaces. They were free to choose more than one alternative.

At the first stage, researchers travelled among different classrooms proposed by the teaching staff. In each classroom, they first explained the aim of the questionnaire and then projected the images of the schools in the walls by offering so children the possibility of grasping the spaces. The same questionnaire was done almost one year later with 25 children in the premises of the school library. (Figure 4.19) The procedure was the same except some differences in the adjectives used, providing more images and animations to virtually move into the school buildings. In order for the children to be more objective about their own school building, in the second

application removal of their school from the questionnaire is a movement that would make children not feel disappointed with their schooling conditions. The reason behind this change lies in the findings of the first questionnaire. Most of the children were unclear about the used adjectives and asked for more visuals to grasp the spaces better; they said that they would not evaluate their school for bad compared to the others.

Figure 4.19 : Second group of children attending visual questionnaire (F.Hysi).

This section was designed to measure the hypothesized developed children's skills and abilities in participating.

4.4.1.2 Findings

Findings of this study are overviewed by the researcher with observations and impact that children's view have through the process. How did children relate images and feelings? They conducted the questionnaire together with an optional explanation of their choices. The final report of 93 and 25 children are listed together for comparison objectives. With the hope of the visual questionnaire to contribute to POE, the findings and results of this session are provided below together as well.

As part of the study were also considered and observed the impact and outcomes of children participation in thinking about reacting on and evaluating designed spaces. The priorities and the weaknesses of each experience will be treated in the discussion section.

a. Rosa Parks Elementary School, Berkley, Ca, USA

Rosa Park Elementary School (Figure 4.20) is an example of buildings designed for community by community after the decision of reconstruction of a ruined structure after an earthquake in the area of Berkeley, California. The participatory process has begun by the planning time. Children, teachers, parents and members of the community contributed to a "community school designed not only to educate but also to strengthen families and build community" (Walden, 2015, p. 164).

Figure 4.20 : Rosa Parks Elementary School, Berkley, Ca, USA (Participatory) (Walden, 2015).

The school is selected for this questionnaire not only to inform children about a successful participatory school project but also to let them know that know that participation does not always remain on paper. Assessing a school accessible by everyone that organizes activities in the after-schooling hours not only for children but also for the whole community, would make pupils think about the design alternatives and rich spaces accommodated in a school building.

In the first application, the images showed to children were less in number. In the second presentation, more illustrating photos were used in order for the kids to clutch better the selected school buildings. Since the first impression is either to like or dislike, says Sanoff (1995, p. 60), a more careful look may give reasons for their preferences. The results of both sessions are illustrated in the table below (Table 4.5).

The building impressed children. Most of them, from both groups, expressed their affection for the building but especially for the outdoor environment. They stated it

immediately after the researcher's explanations and at first sight of the images. They loved it because it is low-raised and has plenty of common outer spaces.

Table 4.5 : Results of evaluating Rosa Part Elementary School: group1 (up), group 2 (down).

Adjectives		**Total of 93 children**					
		outdoor		halls		classroom	
Interesting	Boring	**67%**	3%	**29%**	29%	**49%**	49%
Dynamic	Static	**6%**	3%	**13%**	13%	**9%**	5%
Inviting	Repelling	**34%**	3%	**9%**	27%	**26%**	5%
Novel	Common	**22%**	7%	**26%**	16%	**11%**	11%
Pleasant	Unpleasant	**55%**	4%	**13%**	15%	**38%**	5%
Friendly	Unfriendly	**28%**	5%	**27%**	21%	**30%**	3%
Like	Dislike	**50%**	1%	**24%**	4%	**40%**	3%

Adjectives		**Total of 25 children**					
		outdoor		halls		classroom	
Interesting	Boring	**72%**	4%	**32%**	12%	**49%**	49%
dynamic	monotonous	**40%**	0%	**40%**	12%	**5%**	5%
Inviting	repelling	**40%**	4%	**32%**	16%	**5%**	5%
Child oriented	Staff oriented	**56%**	8%	**44%**	4%	**11%**	11%
spacious	Not spacious	**56%**	4%	**32%**	12%	**5%**	5%
Like	dislike	**68%**	0%	**52%**	15%	**3%**	3%

I think that questionnaire has helped children to think creatively and adjectives cared about describing better their thoughts about the building. The first group showed difficulties in understanding the adjectives. The younger group, particularly, found difficulties but there were also some individuals from the older pupils who encountered the same problems. Consequently, when the questionnaire was re-applied the adjectives were reconsidered; they were fewer and a more explicit. Results show that when reapplied the questionnaire was much more realized in terms of being a well-defined and apprehensible questionnaire form.

For the first group the following features were considered more successful for Rosa Parks elementary school outdoor.

-being an interesting building (67%)

-being pleasant environment (55%)

-being inviting (34%)

Less value was given to being a novel design and a dynamic space, a feature that is appreciated in the second group. Negative aspects are not considerable; varying from

1% of the children disliking the school to 7% finding it common. Such a tendency is seen even in the second group but with a higher conscience of children's outcomes. Children were more conscious about the school building and clearer about the adjectives. Results showed that they have positive attitudes about the outdoor areas. Spacious and child oriented are other features that they liked most.

On the other hand, the hall views of the school do not show the same success. 29% of the participants find it interesting and friendly (27%) but quite the same number find it repelling, boring and unfriendly. The awareness of the second group is seen even in evaluating the halls of Rosa Park Elementary School, an increase in evaluation is present but again compared to outdoor and classroom space it is less valued. In general, they state that they like the inner view of the building.

Classrooms are categorized as pleasant environments and friendly spaces. Only 9% think it is boring and weird in the first group, while in the second group, because of wider information transmitted, children liked a lot the classroom and its layout.

Few comments are noted about this school building by the researcher through the process (set2). One kid admitted that they could bring similar design attitudes in case their thoughts were asked but their proposals for each building unit would be different so that each age group could identify his own unit from the building appearance.

b. Pathways world School, Gurgaon, New Dehli, India

"Pathway school is one of those examples where surrounding is an extension of classrooms. Time by time "classrooms are transferred outside." The concept, says Walden (2015), was inspired by "Learning Street", where learning is mixed with outdoor landscaping (Figure 4.21).

The researcher transmitted this information to participants before proceeding to the visuals, but giving these explanations was not enough and it did even not influence the children. They immediately forgot about it and focused on the water element present in the image. They expressed loudly their affection for water not only as a decorative element but, also for swimming.

Figure 4.21 : Pathways world School, Gurgaon, New Dehli, (www.pathways.in).

Nevertheless, the enthusiasm the first group showed in the beginning is not reflected in the evaluation. About 45% found it interesting. On the contrary, the second group showed their excitement. Without any doubt, they found the outdoor environments interesting, spacious and child oriented. The evaluation of the inner spaces' appreciations is not at the same level to the general layout. Children of the both groups think it is interesting in general and both groups like it. A summary of the results is presented in table 4.6, but what strikes in the first group's class evaluation is that children generally find it boring and ordinary.

Table 4.6 : Pathways world School, Gurgaon, New Dehli, India, results of evaluation by first group (up) and second group (down).

Adjectives		**Total of 93 children**					
		outdoor		halls		classroom	
Interesting	Boring	45%	8%	**53%**	12%	**30%**	22%
Dynamic	Static	**11%**	3%	**10%**	6%	**10%**	6%
Inviting	Repelling	**20%**	10%	**12%**	17%	**12%**	25%
Novel	Common	**14%**	9%	**8%**	14%	**8%**	37%
Pleasant	Unpleasant	**32%**	8%	**33%**	10%	**19%**	11%
Friendly	Unfriendly	**20%**	5%	**23%**	9%	**18%**	11%
Like	Dislike	**37%**	1%	**35%**	1%	**23%**	1%

Adjectives		**Total of 25 children**					
		outdoor		halls		classroom	
Interesting	Boring	**72%**	4%	**32%**	12%	**49%**	49%
dynamic	monotonous	**40%**	0%	**40%**	12%	**5%**	5%
Inviting	repelling	**40%**	4%	**32%**	16%	**5%**	5%
Child oriented	Staff oriented	**56%**	8%	**44%**	4%	**11%**	11%
spacious	Not spacious	**56%**	4%	**32%**	12%	**5%**	5%
Like	dislike	**68%**	0%	**52%**	15%	**3%**	3%

Reapplying the questionnaire with more images and a clearer view of the spaces makes the children's results change significantly.

Now, classrooms are thought to be interesting (56%), dynamic (56%), inviting, spacious and child oriented.

Overall, children understood the concept of the school. They commented on the benefits of landscape as part of outdoor learning environment. The classrooms were evaluated as common, while having the lesson outside the walls of the building is a recommended practice by them. A boy (aged 11) from the second group had described the unique opportunity to learn in the nature.

"... intersecting with the nature will make us gain deeper insight into the physics, biology issues and guide us toward thinking critically."

Through the course of time, the second group was exposed to a range of images. The main feedback was about the need of more space in their own school. Results show that formal learning is not so welcomed by the children. Classrooms show a considerable percentage of being evaluated as common (37 %).

c. *Akemi Minami Elementary School and Akemi Middle School, Japan*

This school was chosen for the facilities that the building offers. It is similar to subject 3-school building of this thesis research. Elementary school and middle school in Tokyo share facilities such as science and art rooms, a student lounge, a reading area, a wet corner and a computer center, which are present in each unit. "100 vjetori" school shares the building together with facilities. In Akemi Minami case Elementary and Middle School (Figure 4.22) are connected by a hall called "Community Street" which "encourages interaction between elementary and middle school pupils" (Yanagisawa & Morita, 2009).

This building is designed to encourage individual learning due to its organization in clusters and far away from regular classes (Walden, 2015, p.176).

Approximately half of the questionnaire participants found the building idea interesting. Such a result is valid for the both groups that were interviewed. They have noted the similarity with the Albanian school buildings in that, Akemi Minami share spaces between elementary and middle school children. Children of the second

group expressed loudly that this is a good manner to achieve the division of the spaces by taking in consideration the child ages.

Figure 4.22 : Akemi Minami Elementary and Middle School, (Walden, 2015)

They like it as a concept but on the other side, being designed in floors is the reason why 26% of the first group consider it as common and 18% as repelling. On the contrary, the second group showed different attitudes. The hallways are evaluated at the same rate but 28% of the children think that the interior is much more inviting and not as repelling as it looks from outside. In this case again are present huge differences between both groups.

Table 4.7 : Akemi Minami Elementary School and Akemi Middle School, Japan, results of evaluation by first group (up) and second group (down).

Adjectives		**Total of 93 children**					
		outdoor		halls		classroom	
Interesting	Boring	**43%**	6%	**55%**	2%	**35%**	15%
Dynamic	Static	**6%**	9%	**9%**	6%	**9%**	4%
Inviting	Repelling	**15%**	18%	**28%**	6%	**11%**	16%
Novel	Common	**12%**	26%	**12%**	11%	**16%**	10%
Pleasant	Unpleasant	**30%**	10%	**32%**	2%	**16%**	15%
Friendly	Unfriendly	**20%**	15%	**34%**	6%	**14%**	14%
Like	Dislike	**40%**	1%	**48%**	1%	**23%**	1%

Adjectives		**Total of 25 children**					
		outdoor		halls		classroom	
Interesting	Boring	**52%**	4%	**48%**	0%	**56%**	4%
Dynamic	Monotonous	**24%**	8%	**40%**	20%	**20%**	12%
Inviting	Repelling	**40%**	4%	**30%**	0%	**24%**	4%
Child oriented	Staff oriented	**24%**	4%	**28%**	4%	**24%**	4%
Spacious	Not spacious	**28%**	8%	**52%**	0%	**32%**	8%
Like	Dislike	**44%**	12%	**60%**	0%	**48%**	8%

The second group once more, has an increase in the percentage of the positive adjectives attributed to the building.

Meanwhile, compared to the other spaces, classrooms (in both cases), though in general positive, were highly rated as boring environments. Children said the classrooms are common but the idea of having transferred the lesson out of the classrooms is a nice approach. They especially credited individual pockets. In the notes section, pupils have written that the presence of the computer centers in each unit is very positive. Yet more during talks, they refer to Akemi School as "*the technological school*".

d. Martin Luther High School and elementary School, Germany

This building was selected firstly for its difference from the two others, and secondly for a successful case of renovated school buildings. Moreover, this building's concept collides with the workshops from where dreamland environments were proposed by children. Martin Luther High School and Elementary School (Figure 4.23) is a rare example of cooperation between users (children and teachers) with an artist. Friederisreich Hundertwasser, well known for colourful and undulating shapes, has successfully collaborated in the renovation of the school building. Changes were made not only to the exterior appearance of the building but to the interior organization as well. A green roof accessed by children and used for having lectures was an innovation (Walden, 2015).

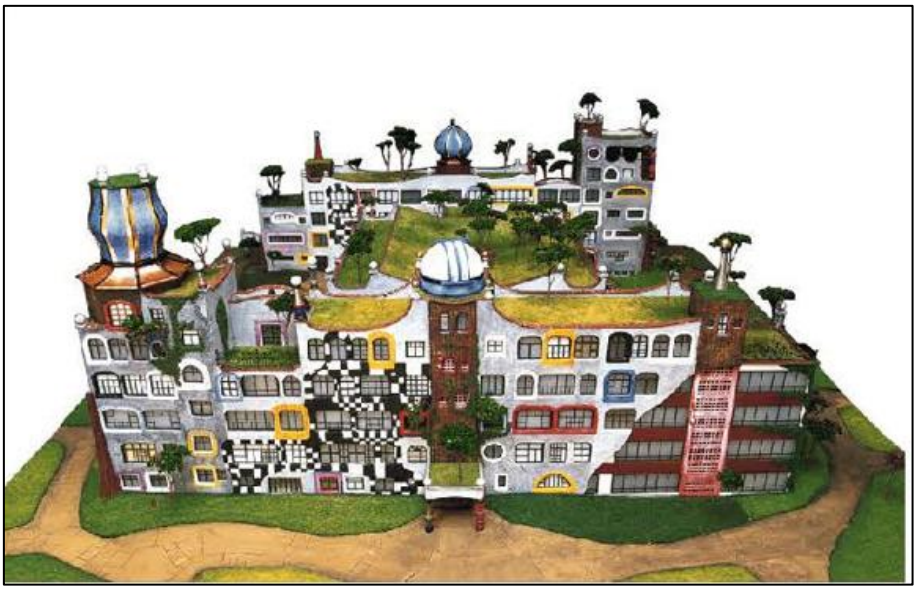

Figure 4.23 : Martin Luther High School and Elementary School (The HUNDERTWASSER).

A rich interior, in terms of components, such as computer labs with free internet access, laboratories and an observatory, an exhibition area at the upper most level where children paintings are exhibited next to works of wide known artist's masterpieces (Walden, 2015) are elements and details that excited children participating in the questionnaire.

When it comes to the results, this building has the highest rate of positive evaluation on one hand and the highest evaluation for being a bizarre building (%30). On the other hand, more than 50% of the children evaluate it as interesting, pleasant, friendly and inviting.

While the building dynamism is considered as encouraging by children, results regarding the colourfulness of the building are significant. Such features seem to have had an impact on categorizing the building as friendly (35%) and child oriented (44%). A more detailed view of the overall evaluations is illustrated in the table 4.8.

Table 4.8 : Martin Luther High School and Elementary School, results of evaluation by first group (up) and second group (down).

Adjectives		**Total of 93 children**					
		outdoor		halls		classroom	
Interesting	Boring	**54%**	12%	**28%**	13%	**51%**	15%
Dynamic	Static	**14%**	4%	**2%**	4%	**4%**	0%
Inviting	Repelling	**26%**	14%	**10%**	16%	**11%**	2%
Novel	Common	**30%**	6%	**10%**	6%	**0%**	15%
Pleasant	Unpleasant	**42%**	11%	**18%**	15%	**5%**	16%
Friendly	Unfriendly	**35%**	8%	**15%**	10%	**9%**	20%
Like	Dislike	**51%**	1%	**31%**	5%	**8%**	17%

Adjectives		**Total of 25 children**					
		outdoor		halls		classroom	
Interesting	Boring	**60%**	8%	**40%**	24%	**48%**	0%
Dynamic	monotonous	**40%**	4%	**48%**	16%	**24%**	0%
Inviting	repelling	**40%**	4%	**20%**	16%	**36%**	0%
Child oriented	Staff oriented	**44%**	12%	**32%**	16%	**40%**	4%
Spacious	Not spacious	**40%**	0%	**32%**	4%	**28%**	4%
Like	dislike	**56%**	8%	**28%**	8%	**56%**	4%

An interesting outcome that the researcher perceived about evaluation of this building is that negative assessment came from both groups' participants aged 12 and 13. Instead of child oriented, they categorize it as childish by noting that it would be a nice building only for elementary schools. In the meantime, halls, classrooms, and the interior appeared to be the most liked spaces of this age group, primarily because

of the number of activity rooms that the building provides, in addition to feeling special to study in a special looking school.

e. Justus-von-Liebig-School, Germany

This school building comes with the concept of "school village" (Walden, 2015, p. 286), (Figure 4.24). Individual classrooms with their own garden in order to offer home like environment was an idea proposed by students and teachers.

They had proposed the school to be “not only a learning institution but a space for living” (Walden, 2015, p. 286). Clearly, the children’s awareness of this school environment is present in this part of the questionnaire. The classroom photos were not shown to the first group because when this questionnaire was applied, the researcher could not obtain images of the classroom interiors.

Figure 4.24 : Justus-von-Liebig-School, Germany (Walden, 2015).

That might be one of the reasons why the evaluation of the children was the least positive among all presented examples. None from the first group liked this building. It gave them the perception of a factory. However, the second group as result of more images presented to them, did not frame the results in the same way. The table below (Table 4.9) illustrates a clearer view of children preferences.

They liked the building and the classrooms both equally (48%). While in the second group results extremes like spacious and child oriented are seen, adjectives such as monotonous, "staff oriented" and "boring" are the other polarized ends.

Table 4.9 : Justus-von-Liebig-School results of evaluation by first group (up) and second group (down).

Adjectives					
		outdoor		halls	
Interesting	Boring	**30%**	24%	**22%**	30%
Dynamic	Static	**0%**	4%	**6%**	3%
Inviting	Repelling	**2%**	0%	**6%**	29%
Novel	Common	**27%**	0%	**19%**	6%
Pleasant	Unpleasant	**20%**	11%	**9%**	18%
Friendly	Unfriendly	**11%**	0%	**10%**	13%
Like	Dislike	**0%**	12%	**13%**	8%

Adjectives		Total of 25 children					
		outdoor		halls		classroom	
Interesting	Boring	**68%**	4%	**56%**	0%	**60%**	4%
Dynamic	monotonous	**40%**	4%	**48%**	16%	**24%**	0%
Inviting	repelling	**24%**	8%	**20%**	4%	**24%**	4%
Child oriented	Staff oriented	**40%**	4%	**32%**	4%	**40%**	4%
Spacious	Not spacious	**40%**	0%	**36%**	4%	**8%**	12%
Like	dislike	**48%**	8%	**36%**	4%	**48%**	4%

f. At Pjeter Meshakalla, Albania

"The school complex is located in the center of an urban area and all areas of the relationships; the green and the various activities are open to the outside and relate directly to the city. The lot for which the intervention operates, therefore, as an "urban void" in a large plate/block city center, via the arteries of different sizes, located almost in the middle of an intersection virtual" (Lomholt, 2013). This school building is located in the city of Shkodra and is one of the good designs present in Albania (Figure 4.25).

The aim of including this school to the questionnaire was to introduce children to the local context. 50% of the students think it is interesting and like the fact that it is within Albanian borders. They find it inviting and friendly.

However, both groups see inner halls as common. 12- and 13-year-old children are the ones who value it the most. Other ages think it is common, repelling and gives the impression of a hospital. In general, the building is liked and evaluated as pleasant.

Figure 4.25 : "At Pjeter Meshakalla" School, Albania (Roberto Pierucci)

Children expressed through conversations their appreciation about the building night view. The school buildings which generally by night are not used, this building reflects a good way of dissolving the meaning of the school as an important asset of a city.

Table 4.10 : At Pjeter Meshkalla School results of evaluation by first group (up) and second group (down).

Adjectives		**Total of 93 children**					
		outdoor		Halls		classroom	
Interesting	Boring	**55%**	13%	**33%**	16%	**40%**	8%
Dynamic	Static	**10%**	3%	**10%**	5%	**5%**	2%
Inviting	Repelling	**19%**	11%	**17%**	19%	**37%**	2%
Novel	Common	**14%**	15%	**13%**	15%	**0%**	24%
Pleasant	Unpleasant	**42%**	5%	**18%**	6%	**5%**	4%
Friendly	Unfriendly	**23%**	2%	**23%**	8%	**31%**	5%
Like	Dislike	**38%**	8%	**33%**	8%	**48%**	1%

Adjectives		**Total of 25 children**					
		outdoor		halls		classroom	
Interesting	Boring	**60%**	4%	**40%**	8%	**36%**	8%
Dynamic	monotonous	**32%**	4%	**28%**	4%	**20%**	8%
Inviting	repelling	**40%**	12%	**28%**	8%	**20%**	16%
Child oriented	Staff oriented	**32%**	4%	**32%**	4%	**20%**	4%
Spacious	Not spacious	**36%**	8%	**36%**	4%	**8%**	4%
Like	dislike	**56%**	0%	**40%**	8%	**44%**	0%

g. *'100 Vjetori' School, Albania*

This building is the school where researchers conducted the questionnaire (Figure 4.26). Here, children evaluate their own school environments. Children demonstrated mixed feelings in the evaluation. That was the reason why it was not

relocated in the questionnaire of the second group. Pupils made evident their sympathy by expressing it in the conversations they had among themselves. They appreciate and are attached to their own school building. Assessment results show a high rate of gratitude. High credits are given to features such as: being inviting, pleasant, interesting and friendly environment.

The same attitude in this case was not seen in the classroom arrangement. Children are bored with the everyday layout and name it as common. Despite this, in general, they like their own environment. They make statements such as: "it is the place where I have my friends." The overall evaluation is in table 4.11.

Figure 4.26 : "100 Vjetori" school in Kamza.

Table 4.11 : "100 Vjetori" school evaluation results.

Adjectives		**Total of 93 children**					
		outdoor		halls		classroom	
Interesting	Boring	**52%**	1%	**0%**	0%	**26%**	19%
Dynamic	Static	**1%**	0%	**1%**	0%	**0%**	0%
Inviting	Repelling	**46%**	1%	**34%**	1%	**1%**	10%
Novel	Common	**0%**	24%	**0%**	31%	**0%**	39%
Pleasant	Unpleasant	**56%**	0%	**46%**	0%	**21%**	1%
Friendly	Unfriendly	**46%**	0%	**31%**	0%	**14%**	1%
Like	Dislike	**58%**	0%	**43%**	1%	**34%**	0%

It was aimed that after evaluating worldwide examples, children could reflect better in the evaluation of their own school buildings. They were expected to think comparatively and not mix feelings. A clearer result was expected based on their

own experience and the direct connection they have with the school spaces. However, since the children thought about the questionnaire as an evaluation of their own school building for external audiences, they expressed their transformation of the results by trying to advertise their environment as a good space for educational experiences.

h. Choice of the most preferred building. Choice of the eating area!

One of the questions of the survey was about the school the children would prefer to study among the ones they saw. Explaining their choice was a necessity. Results are organized according to the preferences in the figure 4.27.

Figure 4.27 : Rank of children's preferences from the most preferred (1) to the least (6).

Preferences showed variations among age groups. The youngest prefer Marthin Luther High School and Elementary School in Germany, giving explanations such

as: it is a picture-like building, it is magical, friendly and you feel like you are in a fairy tale. And at the same time it took the most votes.

Rosa Parks Elementary School, Berkley, Ca, USA (Participatory) is another building being preferred (15/85). In the explanations they touch the fact that individuality of buildings brings well-lit environment and offer home like space qualities.

Pathways world School, Gurgaon, New Dehli, India (Learning Landscape) is another preferred school due to the fact that it is visible in the photos that the school has got the water element as an integral part of the school spaces. Children like to swim. Different age groups from this school have shown equal preferences. Dimensions of space are among other criteria that pupils mention as a reason for their choice.

i.Section 2

The first section of the questionnaire addressed motivation of children by stimulating images and ideas about the school general outer view, inner halls and classrooms. This section is about other spaces of school components. Although the images are not from the first section school buildings, they are a good prompt to inspire children and to find out about their preferences. Their affection to the specific spaces in the building is revealed explicitly in the questionnaire. They were given images about the variety of learning spaces aiming to tell children that there is not only one kind of learning space: classroom.

Another group of images was about where to spend free time and do some reading. This was about making them think more than the halls of the building. The last prompt was about lunch time spaces. This category is totally missing in the Albanian public schools. Based on the results of the first group, which are explained in details below, the researcher decided not to reapply this section to the second group. The reason is that the children found the questionnaire long. Instead, the researcher showed only the images of the successful cases as the main aim of the second group is to raise children's participation awareness and open their design vision. In this context the results of the first group are enough to have the proper data of the children preferences for the asked school space component.

j. Learning Spaces

Four options proposed to the children were classical classrooms, open space, small room and individual space learning layout. The results demonstrated that

individuality is essential. This dilemma about preferences for socializing inan individual space or an open area changes according to the activity. It is important to mention that at the same time this is tightly connected to the way of teaching. Changing in curricula should reflect on the changes in the spaces. In addition, since the school is for education and learning, % 95 of the participants agree on this, the classroom is not the only learning space. The whole buildings should be as such; a learning environment. The results that came from the alternatives enabled evaluation of children's preferences. There is a high percentage of agreement in these responses. The need for privacy is what depicts more. 64% of the participants are about individual learning spaces. The table 4.12 gives a clearer view of the preferences.

Table 4.12 : Preferences for learning spaces.

Learning Spaces	Individual space	classroom	Open space	Small areas
Rate of percentage	65%	17%	11%	8%

k. *Free time and reading*

Students need plenty of spaces in their free time. It is not the building or a particular thing they play with; they find their own way of playing, as long as they have sufficient space. All the age groups showed the same attitude. A total of 75% chose to spend their free time as a group (Table 4.13).

Table 4.13 : Free time and Reading Spaces.

Free time/reading	Furniture open area	Outdoor	Individual corners	Individual furniture
Rate of percentage	65%	37%	17%	8%

There is a belief that leisure time is equal to free spaces. Individual spaces are more for self reflecting time and learning activity. This reveals messages such as the school is not only for learning, but also for socializing. It means that the same importance and attention that is paid to classroom/ learning spaces, should be given to the social areas as well.

l. Lunch time space

The final prompt was about the spaces where children may consume lunch. It is widely accepted that schools should offer spaces that children are in need, only in this way they can develop as healthy individuals. If the opposite happens, children start feeling minor. It is absolutely uninspiring to children, they say; 'why not to have

a place where we can eat, like in private schools'. Looking at the results it can be said that a designed space is what they need for a healthy and beneficial lunchtime (Table 4.14). A cafeteria, fast food like environment or a designed outdoor space dominate the responses. 5% that choose to eat in nature, in any place, are only three children from 11-year-old group and one from 15-year-old participants.

Table 4.14 : Preferences for lunch time spaces children chose.

Lunch time spaces	Outdoor cafeteria	Outside in the nature	cafeteria	fast-food
Rate of percentage	38%	30%	27%	5%

4.4.1.3 Discussion

In this section, the aim was to introduce children to evaluation of a wide gamma of designs. Such an evaluation is achieved by giving them some adjectives and asking them to describe their choices. Such a method resulted to be successful. Especially the second group of the participants showed an increase in the understanding of spaces and reacted with comments on that. Images awaken emotions that are related to feelings and experiences. In a questionnaire where a preference has to be expressed, the choice is based on a "relationship between present feelings and experiences" (Sanoff, 1995, p. 68). In this visual information/assessment feelings had more importance than experience, because they do not experience the same space conditions in their school buildings. Nonetheless, their feelings and imaginations are triggered by the visuals which appear to accomplish the questionnaire goals.

This session of the series of the workshops becomes a good foundation for the next step of the research. First of all, the visuals selected aimed at framing children about the potentials and the large scope of design, and secondly the adjectives apart from increasing kids' vocabulary, give more clues about the children preferences. Thus the researcher can judge the tendency that a group of children have about the appearance of the school buildings.

Unfortunately, due to the large number of participants and the time available, the first group showed less perception of what is projected through the images. Meanwhile, the second group explored better the visuals as their results are based on the revised list of adjectives and all the time they needed to reflect. Thus, the second's group questionnaire is applied more as a co-session in the method of a forum rather than a

lecture as it was applied to the first group. The interest of the second group was greater compared to the first one.

However, the results showed similar tendencies.

Problems and limitations accompanied the research. The results demonstrated that some of the adjectives were signed for the sake of marking. This is understandable from the paradox in the answers of the questionnaire form. Children who find the building “interesting” find it “repelling” as well.

Thus, it is impossible to say that such an exercise was successful. This is due to fact that the aim of the visual questionnaire is to widen the children’s vision of the wide range of school design and to make them aware of the opportunity offer. A planned workshop a couple of months is where it is expected to see the influence and the results of this questionnaire. Nevertheless, the overall features of the process and outcomes of the visual questionnaire for the both groups were revealed as follows;

- Visuals play an important role
- Visuals encourage children to think holistically
- A more detailed explanation and more visuals in the questionnaire control ambiguity and bring clarity to possible conflicts
- Being a participant in prior activities makes children more willing and more confident
- Most of the children concentrate on specific spaces or elements of the spaces (computer labs, fairy tale appearance, water element, open air spaces)
- Girls and young ages are more expressive and more concentrated to react on what they are invited to collaborate with
- Young children accept any image and explanation by taking it for granted, while older ones are more selective and sceptic
- A smaller group shows positive effects of social experience during participation

To sum up, the process of working with visuals had both benefits and difficulties for both children in both groups and the researcher. The researcher had a positive experience in the course of the questionnaire application. Children were interested in and ready to contribute in the hope that their own building or Albania’s school building would possibly change in the future.

One of the primary difficulties was managing time and groups unfazed. Passing from one classroom to another made it sometimes impossible to attract the attention of children and have them concentrate on visuals in order to then bring thoughtful answers.

Responses revealed that the method of applying a questionnaire in a limited time and in the classroom environment is less reliable than the application of a questionnaire with pre-taught and trained children.

It can be referred here once more that perplexing adjectives such as “boring” and “interesting” are selected at the same time or it is possible to find questionnaire forms where children from the first group selected all the alternatives in the survey.

Another difficulty is that the children have a great number of information taken in a limited time, which makes it difficult to be remembered toward the end of the questionnaire. The researcher has to repeat the characteristics once more so that the children make their ranking properly at the question: “Sort the school buildings according to your preference”.

However, individuality is what matters most even in the last section of the questionnaire. The children are in need of individual spaces to learn on their own. In addition, other activities such as reading, spending free time or having lunch are events that children prefer to perform in open air. Such kind of information helps to accumulate and build data on different space needs of the children.

Thereof, the second part of the questionnaire was fruitful for the designer and the pupils. It has been valuable even though there was no re-application in the second group of participants. Visuals gave better view of the treated spaces. In this way, children know how and where to use the indicia when it comes to propose changes in their own building.

Despite the challenges of the process, organizing an image-based survey strengthened the way to understand the children’s vision about the school buildings and their self-esteem on one hand, and increased the collection of information about the child spaces and their preferences on the other. The data collected showed a consistency for the both groups with the difference that the second group children showed more awareness. Overall, the experience was positive and worthwhile. Pupils had the opportunity to see different concept buildings from around the world and

evaluate their building then accordingly. Yet, most important of all, the contributions is to be seen in the other step of the designed route of the research. Children reflection would bring design ideas that can contribute to designing and renovation processes.

4.4.2 The POE questionnaire

POE is a process of building assessment. School buildings are among the buildings that are in rapid need of evaluation and maintenance. The purpose of the questionnaire for post-occupancy evaluation was firstly, to measure the level of influence of the visual questionnaire and secondly, to evaluate the building performance from the children's viewpoints.

4.4.2.1 Process

The components of the questionnaire go gradually from the general view of the building to physical characteristics, outer spaces, learning spaces, common spaces, technology, halls and circulation areas, building context, school safeness and some specific space evaluation. Some of the sections are agreeing or disagreeing with the statements, the others are 4-point scale from very satisfactory to unsatisfactory. They were applied right after the visual questionnaire for both cases. It is a kind of participatory method that organizes impression and experiences of the children.

4.4.2.2 Findings

All the students that participated in the visual survey were present at this second inquiry; a total of 93 surveys. Between the lines there were children who had not completed some responses. Difficulties of this manner were present throughout the survey. In the younger ages the researcher had to read the questions loudly, considering that they found the questionnaire too long and there was time pressure. In the second group, 25 respondents evaluated their school building through the same written questionnaire. The survey is distributed to the children right after the visual questionnaire, in which their own school building was not present. With this new method, children did not get bored and evaluating their own building only in a separate survey sent them away from the psychology of trying to denigrate their own school building.

Generally, children were satisfied with the building as a learning environment. They had a positive attitude toward the building's appropriateness for learning. However, the attitude toward the appropriateness of the outdoor spaces was not as positive. The fact that it is not integrated with the nature and that does not offer individual space account for the high rate of dissatisfaction. Moreover, children would love to have schools that open directly outside. They are satisfied with the halls and common spaces within the school building and they feel safe in their environments. Personalizing the space is an issue that should be considered because most of the children expressed their need for individuality. In a scalar question ranging from one to five, about 70% of the participants evaluated their school with 4 or 5.

a) A General evaluation of the building

The general evaluation of the building is positively rated. The building is clean and besides the cleaning staff, children have a great contribution to that. 80% of the children participants expressed their readiness to contribute to the maintenance of the building. Though there was not a specification of what kind of spaces they show this sensitivity, it is speculated that it has mostly been evident in the classrooms. The most positive characteristics of the school building is the exhibition of the works of the children on the walls of the classroom and the halls without ethnic and race division. Most of the respondents agree with this fact. The general level of satisfaction for both applications of the questionnaires are illustrated in the Table 4.15.

Table 4.15 : Level of satisfaction in a general view.

	First questionnaire		**Second Questionnaire**	
Item	**Percentage**	**Response value**	**Response value**	**Response value**
Cleanness	63	Satisfied	93	Satisfied
Work exhibited	87	Satisfied	94	Satisfied
Race/ethnic division in exhibition	71	Satisfied	94	Satisfied
Flexible	70	Satisfied	84	Satisfied
Movable furniture	54	Satisfied	43	Satisfied
Noisy spaces	78	Satisfied	51	Satisfied
Outdoor learning spaces	**51**	Satisfied	35	Satisfied
Child contribution in maintenance	79	Satisfied	90	Satisfied

Meanwhile, the least positive characteristics are the lack of outdoor learning spaces and sound plus acoustics. Both groups are aware of not having a positive outdoor space, but again the level of awareness is greater in the second group of children.

As for the flexibility of the usability of the spaces and the movability or the modifiability of the furniture, children qualified it as a positive characteristic. The 6th and 7th grade do not agree with the average result of this situation by stating that it is impossible to change the places of the furniture and to assemble versatile environments. The same explanation is given by the 8th and 9th grade of the second group. The spaces are dedicated to their own function and though there might be possibilities of rearrangement "the administrative staff will never allow" says a 14-year-old girl.

General Physical characteristics of "100 Vjetori" School

This section of the research aimed to stimulate children to think about relationships. How is indoor outdoor relationship? Think about themselves and about disabled children How is building facing children with disabilities? They should be aware that in the building, lighting and noise control are important issues. This part of the questionnaire aims at making children think about the physical environment as a crucial component of the educational system.

The results in the table 4.16 shows that the students are mostly satisfied with their school. Children of group 1 think that the building is suitable for education and has a good indoor outdoor relationship. However, they do not share the same opinion about the furniture height. Most of the 9th grade children are of the opinion that furniture is not for their age. That might be a problem of the system and the space division. A child of the first grade uses the same environment as an adolescent of the 9th grade.

Table 4.16 : Satisfaction level of general characteristics of the school.

	First questionnaire		Second Questionnaire	
Item	**Percentage**	**Response value**	**Response value**	**Response value**
Indoor-outdoor relationship	80	Satisfied	61	Satisfied
Suitable for education	79.5	Satisfied	84	Satisfied
Suitable for universal design	78	Satisfied	31	Satisfied
Furniture suitable for children	50	Satisfied	68	Satisfied
Noise control	73	Satisfied	63	Satisfied
Naturally lightened indoors	74	Satisfied	78	Satisfied
Perceivable entrance	77	Satisfied	84	Satisfied

The results of the question on the suitability of the building for universal design we can grasp the problem that is expressed at the beginning. The first group got bored and reacted with little concentration on the questionnaire. The second group, on the other hand, tried to evaluate the building more reasonably.

Appearance of the building

The building is a relatively new construction. It is among the well maintained school buildings in Tirana. This situation leads to the children's great satisfaction with its outer appearance as well as inner appearance. However, children brought confused results on the harmony of the building with the surrounding. For the second group of children the inner harmony between the spaces seems to not have had the same success as in the first group of children. Confusing results are mostly observed in the first group outcomes (Table 4.17).

Table 4.17 : Level of satisfaction for appearance of the building.

	First questionnaire		Second Questionnaire	
Item	**Percentage**	**Response value**	**Response value**	**Response value**
Outer appearance	83	Dissatisfied	68	Satisfied
Interior appearance	90	Dissatisfied	79	Satisfied
Building in harmony with surrounding	54	Satisfied	36	Satisfied
Harmony within the inner spaces	67	Dissatisfied	42	Satisfied
The level the building motivates	79	Satisfied	50	Satisfied

The question findings are clear; all participants from both groups say that the inner appearance of the building is what they appreciate most. The building, according to both groups, does not fit to other structures in the surrounding environment. Nonetheless, that doesn't make any problem for children. They feel proud of having a building different from other buildings around. This doesn't mean that they are satisfied with it: it is all about being signified from outside. Still they say that changing it in the future would make the building much more perceived from away. Yet, it is the characteristic which received the least attention.

Moreover, not all pupils are motivated by the physical environment of the school. Regarding their opinions about the motivation they get in the school building they are currently using, there is seen a division into half of the second. Half of them does and the other half does not feel motivated in the school.

b) Learning spaces

Learning spaces in the questionnaire are assessed into two main spaces. Firstly, the outdoor learning environment and then the indoor learning environments. All is evaluated within their own composing characteristics.

Outdoor learning spaces

The school's outdoor spaces are not only for spending free time and playing as the concept in Albanian schools is. Outdoor spaces, as every single space in the school buildings, serve learning. A good school environment must be designed with such design considerations. In case there is no possibility of designing such areas the location of the school building should be reconsidered. For instance, Harbour City International School in Duluth, USA, "is located within walking distance of the public library, YMCA, art museum, aquarium and television station- allowing the school to leverage other facilities of learning" (Walden, 2015, p 251).

The results show that unsure feelings of the children are present in the evaluation of the outdoor. There exists a risk of the children not knowing exactly what outdoor learning environments are composed of. The researchers had to explain the meaning of an outdoor educational space.

In the table 4.18 there is shown the level of satisfaction which positively dominates, though there is a lack of such spaces in research. On the other hand, the second group is disappointed with the outdoor environment.

Table 4.18 : Outdoor space level of satisfaction.

	First questionnaire		Second Questionnaire	
Item	**Percentage**	**Response value**	**Response value**	**Response value**
Outdoor educational spaces	68	Satisfied	47	Satisfied
Green area	80	Satisfied	38	Satisfied
Open air area	82	Satisfied	47	Satisfied
Outdoor learning environment	68	Satisfied	23	Satisfied
Socializing together	76	Satisfied	28	Satisfied
Individual spaces	48	Satisfied	19	Satisfied

The results illustrate positive achievements in terms of the neutrality both groups evaluate the building.

In addition, what the research reveals is that older ages are more conscious of the answers, though there are cases when they get bored. They express that there is no need for extra spaces to have friends and to socialize, they already have classrooms

for that, but they need spaces for privacy. The same issue strikes most even in the second group. Individual space gets the least percentage of satisfaction.

Indoor Educational Spaces

Learning spaces are the most essential component of a school. Additionally, they are multiple-componential units. Criteria to be considered in the evaluation of learning spaces are: functionality, aesthetic/formal design, social-physical, ecological, organizational and economical (Walden, 2015, pp215-222). From the researcher's survey it is noticed that there are no outdoor learning spaces, which is confirmed in the evaluation results where children label the learning spaces as "dissatisfied". The idea behind asking children about such areas is to push them to think about outdoor learning areas and play areas where games are mixed with learning.

Indoor educational spaces are the main components of a school building. The children are asked to assesse different spaces, Results vary among the existence of a specific space and the level of satisfaction. Table 4.19 indicates that children of the first group are mostly "satisfied" with most of the items of the indoor environment but; on the contrary, the second group is mostly dissatisfied.

Table 4.19 : Satisfaction level for general characteristics of the school.

	First questionnaire		Second Questionnaire	
Item	**Percentage**	**Response value**	**Response value**	**Response value**
Individual learning spaces	69	Dissatisfied	14	Satisfied
Teachers' room collected	60	Dissatisfied	24	Satisfied
Art room	65	Satisfied	40	Satisfied
Science room	52	Dissatisfied	48	Satisfied
Comfortable classes	84	Satisfied	52	Satisfied
Inspiring class environment	82	Satisfied	52	Satisfied
Spacious classrooms	82	Satisfied	57	Satisfied
Flexible furniture classroom	67	Satisfied	48	Satisfied
Appropriate classroom temperature	69	Satisfied	43	Satisfied
Well ventilated classrooms	69	Satisfied	71	Satisfied
Naturally lit classrooms	77	Dissatisfied	57	Satisfied
Classrooms that open outside	73	Satisfied	40	Satisfied
Walls appropriate for exhibition	80	Satisfied	62	Satisfied
Halls appropriate for exhibition	99	Satisfied	52	Satisfied

The second group find successful only the conditions that frame the criteria of evaluating the space quality, natural light and ventilation. The lack of individual learning spaces and the inability to have a direct exit from the classroom to the garden are among privations that the buildings have and which both groups agree with. All participants have no information about the teachers' room, thus their

"dissatisfaction" about this space lies in this fact. Yet, most of them have not visited those spaces.

Children opinions expressed in the comment section demonstrate the need for books in the library and the equipment of the laboratories with the appropriate tools.

c) Common Spaces

This section of the survey is composed and constructed referring to children needs presented in the previous workshops. Among them, a dining hall and a multifunctional hall where they can spend free time and make friends is what children would prefer to have in the school buildings. The overall result of this section is that children are not satisfied. The need for a dining hall is communicated through comments such as "why not to have one similar to private schools" is a delineation of children's right. Table 4.20 reveals the most ambiguous results of this research. In general, children are not satisfied with individual and dinning spaces but their opinion is equally divided about other common spaces; satisfaction is rated the same as dissatisfaction. With the socializing spaces are meant the halls and the courtyards of the building. Meanwhile, the gym is evaluated as the noisy space and physical activity space.

Table 4.20 : Common space level of satisfaction.

	First questionnaire		Second Questionnaire	
Item	**Percentage**	**Response value**	**Response value**	**Response value**
Quite indoor dining area	70	Dissatisfied	43	Satisfied
Quite outdoor dining areas	55	Satisfied	48	Satisfied
Indoor/outdoor individual areas	60	Dissatisfied	24	Satisfied
Noisy space/ physical activity	61	Satisfied	38	Satisfied
Socializing spaces	55	Satisfied	57	Satisfied
Personalizing spaces	54	Satisfied	38	Satisfied

Halls and circulation

This school is a building that exceeds its users' capacity, which means that the satisfaction for the halls and circulation should be strictly considered. Children in Albania spend little time at school. The schools have harsh rules and students are not allowed to use the halls and circulation areas often except for going to class and out. Still, surprisingly, the general rate of satisfaction is high in the first group, while the level of satisfaction in the second group is low. That might be because of the training the children had, and the increased participatory and evaluation skills. These children

had a more detailed investigation in the visual questionnaire. Details are at the table below (Table 4.21).

Table 4.21 : Halls and circulation satisfaction level.

	First questionnaire		Second Questionnaire	
Item	**Percentage**	**Response value**	**Response value**	**Response value**
Satisfaction level about halls	84	Satisfied	44	Satisfied
Satisfaction level about circulation	99	Satisfied	48	Satisfied
Satisfaction level about staircases	60	Satisfied	28	Satisfied
Indoor-Outdoor passage	83	Satisfied	36	Satisfied

d) Other Characteristics

The POE of the building is not only about the physical building but for other characteristics as well. In an educational setting certain elements are of special importance; the use of technology in learning, pedagogical achievements and security as the minimal fulfilled requirements, are some of them. Accordingly, these characteristics are evaluated as follows;

Technology in School

Technology has become an inevitable part of education. It is rated among the most preferable features of the schools. Asked about technology in their school children expressed the need for computer labs. Infrastructure provided by the school in this aspect of education is not satisfactory at all. Table 4.22 indicates how satisfactory these items are. Children have written down the lack of such spaces, more than evaluating them. In these terms, satisfactory level is low.

Table 4.22 : Satisfactory level of technology in school.

Item	**Percentage**	**Response value**
Classroom with tech. system for pupils	70	Dissatisfied
Classroom with tech. system for teachers	61	Dissatisfied
Music system in the building	68	Dissatisfied

The second group asserted that the building is poor in all the technological aspects and pupils didn't want to collaborate in this point by leaving the question empty or by checking all the "dissatisfied" choice in the test.

Security in School

Parents need to feel secure about their children. So do children in order to have good results and frequency in the classes. The school is not located in a heavy traffic road,

which makes the location safe; this is reflected in the results of the survey. In table 4.23 are indicated the levels of satisfaction accordingly. Still, children feel the need for a security staff "for any possible problem that might happen especially in the outdoor spaces".

Table 4.23 : Level of satisfaction for security in school.

	First questionnaire		Second Questionnaire	
Item	**Percentage**	**Response value**	**Response value**	**Response value**
Safe location/without traffic	70	Dissatisfied	76	Satisfied
Safe learning environments	99	Dissatisfied	87	Satisfied
Safe outdoor space	54	Satisfied	60	Satisfied
Security staff	52	Dissatisfied	56	Satisfied

The results of both groups on average show considerable high rates of evaluation. It is important that they feel safe, although they utter the need for more security staff.

e) A general evaluation of the school

The last section of the questionnaire was the most enjoyable part for the children. They had to give a mark in order to evaluate their school and the school components. It is like a summary for all the previous sections of the questionnaire. Both groups that took part in POE had similar approaches to the specific parts of the building they had to assess. The results are as shown in table 4.24.

Table 4.24 : Level of satisfaction for the school and its components.

		First questionnaire		Second Questionnaire
Item	**Percentage**	**Response value**	**Response value**	**Response value**
School in general	72	Satisfied	73	Satisfied
Classrooms	65	Somehow satisfied	42	Somehow satisfied
Labs	81	Very dissatisfied	73	Very dissatisfied
Library	91	Dissatisfied	72	Evenly distributed
Entrance/halls	79	Dissatisfied	68	Very dissatisfied
Gym	82	Very Satisfied	68	Very dissatisfied
Cafeteria	78	Dissatisfied	78	Dissatisfied
Teachers' room	65	Somehow Satisfied	42	Satisfied
Infirmary	96	Very dissatisfied	96	Very Dissatisfied

An analysis prepared for all the groups together indicates the overall evaluation of the building. The location of the building is evaluated as safe, within walking distance from homes. It is not erected in a heavy traffic area, which besides being safe is quiet and not a noisy environment. The most satisfactory space is the gym,

which despite being empty is the only space where children express themselves freely.

A general lack of infrastructure and lack of spaces are reflected in the questionnaire results. Laboratories and library, though present as composing spaces of the building, are not furnished.

The majority (98%) noted the lack of "infirmary". Thoughts about the level of satisfaction in the classroom are evenly distributed.

In addition, a multi-age group of 25 children discussed among themselves about the evaluation of versatile spaces asked in the questionnaire. The library for example, turned into an enjoyable environment of consultations.

"Spaces look more beautiful when they are fruitful to us" says a 10-year-old boy.

4.4.2.3 Discussion

A summary of the findings for this section would be as follows:

The POE of the school revealed the following items;

- Children like their school and feel safe within the building.
- They are satisfied with acoustics, cleanliness and lighting on the learning spaces
- They like the appearance of the building
- They are not satisfied with the spaces arranged for them.
- There is a lack of personal space, cafeteria and infirmary
- There are laboratories but no equipment in it
- There is a library is there but there are no books
- Children are not satisfied with the technology in the building

4.4.3 Discussion of visual and POE questionnaires

Planning and organizing workshops or meetings with children has its own complications in terms of attaining a good communication with them. Different methods of inviting and sometimes convincing them to participate are part of this itinerary. However, their readiness and desire to be considered and contribute is present and at the same time impressive. It might look easy to deal with children that are ready to participate but, unexpected situations may appear to the researchers at the time of implementation.

The research emphasizes that the school buildings are places to teach and inspire the children. Are they considered the same by the pupils? In this context these two exercises had two objectives:

1. How do children react upon school buildings that are considered positive by the grown-ups and designers? It also aimed to influence creativity and stimulate imagination in children.
2. How do children evaluate their own school under the influence of the visual questionnaire?

Both of the questionnaires have their own influence and have made children think more about the spaces they use. But at the same time for both groups and for both exercises there are a number of problems that can be categorized as: participating in the classrooms where they actually have courses may be boring, problems with time management, group management (speaking out what they thought caused impact on decisions) and concerns that children carry about misrepresenting the school building.

As mentioned above, the exercise had two groups of participants. The first group had 92 children and the second group, which was chosen by teachers, 5 children from each of the age group 10-14. The former showed the problem of time management and got bored in the classroom environment. The latter had the think-aloud problem, which influenced their peers' opinions as well. Children participation in the evaluation of the unique models of school buildings around the world, all done by the help of the visuals, appears to be a comprehensive research tool for understanding children taste, practicing participation and increasing creativity. Yet, the goal is to provide better building quality. Children give feedback for the building functional performance and the researcher learns from children's experiences.

This step of the research proved that children can express or hide their feelings according to the situation and dependent on their age and gender. For example, compared to the second group, the first group was under the teacher's and researcher's pressure while filling the questionnaire in the classroom. The second group participated in the library, without the presence of the teacher, which made them express their feelings freely. Images, especially, triggered children to verbalize what they saw and their opinions about the specific school images included in the

survey. Similar discourses are in the POE research, particularly with the second group of children.

Furthermore, POE as a written questionnaire works better for older ages. Young children cannot follow a long written text. Among the older ages, girls are more enthusiastic to participate, while boys frequently slur over.

Given the current findings of this exercise, what does the next step consist in? The method of POE should not be left on paper. Both groups evaluated the current situation, while information about specific spaces, based on what they gathered and what they explored should take form. Furthermore, participating through questionnaire should be overlapped with children's active participation. A broader participation in POE would increase both children's usage of accumulated knowledge by creating relevance and production of a complete communicative language of participation.

4.5 Final Workshop: Walk-through Assessment and Redesign Proposals

There are many methods and techniques that can be used to encourage children participation. They may be listed from drawing, essay writing, poetry and wish list to more interactive methods such as playing, puppetry, video recording, photo shooting, walk-throughs, model-making, etc. Though difficult to apply, interactive methods make children enjoy and generate a communicative and productive environment.

The participatory workshop introduced in the last phase of this research aims to find out the real needs of children in order to improve their quality of life. Furthermore, it will test evaluation and participation of a long active participatory tour. Everything will be based on the walk-through method of participation as an interactive one, followed by other methods of POE and participation, as a mix of them all, for a successful assessment and solution session.

4.5.1 Process

Using participatory and POE techniques as a unification of them all, in a walk-through assessment of the "100 vjetori" school building, with the aim of exploring the effect of a long participatory journey, is the main objective of this workshop.

Participatory assessment is directly connected to the age of the children, meaning that methods and expectations should be engaged accordingly. However, in order to

manage the results and analyse the children's reactions using similar methods, this walk-through workshop's methods and structure are the same for all the ages. The division in groups according to their ages and level during the realization aimed elimination of opinion crash and appropriate evaluation of the results.

This study was carried out in December 2015 with the same group of 25 children at "100 vjetori" school building in Tirana. After taking permission from the school director and the teachers, the researcher divided the children into three groups. The first group of 8th and 9th grade children composed the 13 to 15-year-olds team. The second group of 6th and 7th grade children composed the 11 to 13-year-olds team and the third group, which is the youngest, was the 5th grade group with children aged 10 and 11.

The workshop was developed in a full day session. All started with an introduction to the aim and the steps of the process, then proceeded with group divisions and the tour in the school environments with a focus on both indoor and outdoor spaces. Children have already worked together, which leaves no space for anxiety and there is already built a trust among friends.

The whole trip of all the groups was video recorded. Apart from this, drawings, writing, and mini discussions are other methodological tools that brought insight into children preferences in relation to different school environment.

The tour started from the outdoor spaces; in front of the school area and the courtyard section. In all the spaces that children visited and in all spaces that they went through, they were asked to think about the current situation; what they like or dislike about the spaces; how the dimensions should be, and meanwhile, they also assessed the technical aspects of the building such as sound as well as heating and lighting comforts.

It was thought to start the walk as such because the outdoor is always appealing to kids. In addition, because the researcher didn't want to distract the children she decided to finish the trip at the library, where the children sat and put their thoughts on paper. In the school building plans they drew, the children included proposals to change the building for better. All the spaces had a touch as collective solution by each team. Children were asked to individually draw the existing and the proposed classroom spaces. The classroom as an important space within the school building,

due to the time children spend there (Dudek, 2000), had such a special focus in this process.

4.5.2 Findings of school assessment

Besides providing data for physical learning environments, participation in different ways with multiple methods, is part of a larger research project on learning, teaching and communicating by participating.

As mentioned earlier, in this section there are multiple qualitative methods in use to understand the situation of the school and child behaviour in the build environment. This section provides an overview of the results of the walk-through and the discussion by investigating the observations and video recordings. During this trip, an observation was made of the way children behave in the building and of what they like most or dislike. In fact, there are plenty of researchers that focus on the richness of the world of the children interested in the data that they can transmit to adults from their knowledge about the everyday used environments (Hart, 1997; Chawla, 2001), but here, in specific, is focused in both information get from experience and data received from children's creativity.

a) Outdoor environment and general view

"100 Vjetori" school has a small hardscape front yard and another at the back. The space at the front has some benches and a small area where children line up before entering the school building. The space at the back, apart from a mini basketball field and some gymnastic equipment, has only a promenade.

Children were asked to describe the spaces; what design features they like/dislike and what they want to add or subtract. Firstly, they had concerns about the insufficiency of the outdoor area. They find it small for the number of pupils that follow classes there. The dimensions are not appropriate and they emphasize it by proposing preferences to large and spacious environments. They exhibit the same perception about the number of the seats in the outdoor. Only a few of them are located there, and they want more.

Moreover, all age groups participating are of the idea that outdoor space and the outer façade of the building itself lacks maintenance. Young children have concerns about the color as well.

Another concern is about the promenade at the back. Children are of the idea that it is not used in its full potentials. In the project, promenade bridges the gym to the main entrance hall. In reality it is used only as a shelter.

The gymnastic equipment, part of the backyard, are a threat for the young children because they find them dangerous. Older children deem them as only embellishment. Color and shape are concerns of the youngest group; older children instead give more importance to content. They need more spaces to sit in groups and more areas to have privacy. This age group suffer for socializing spaces. They utter the lack of an open air canteen.

Furthermore, they give their opinions about the surrounding fence, which they would like to be removed because it gives them the impression of being in a prison.

Asked about the green spaces, an 11-year-old boy answers by raising a question: "Is there any green area around that you ask us to evaluate?"

Overall, findings showed that children noticed many characteristics of the build environment. They are mobilized with the help of stimulating and provoking questions the researcher raises.

b) Learning Spaces

"100 Vjetori" school does not have many learning spaces. Only some areas used for physical education can be considered as outdoor learning environments; meanwhile, the indoor learning spaces are dominated by classrooms, some laboratories and a library. However, the gym may be considered as an indoor environment where the physical education course is performed. Hence:

Classrooms

A classroom is the main educational space in the school, where children spend most of the school time. The layouts and the furnishing of all the classrooms in the building are the same. They are rectangular in shape with tables and chairs aligned in rows. Walls are painted all the same and are covered by exhibited child works or other needed educative materials.

Walk-through, as a method, in this case works as a tool for children to express directly in space the concerns and their opinions. Since the research was conducted

in winter, the first thing that the children mentioned was the fact that classrooms are very cold and that they have classes dressed in coats.

Dimensions are another point of concern. Children are not very happy with the amount of space, which, according to them, influences the deficiency of needed building components such as bookshelves, lockers and pockets to sit and relax. Natural light is appreciated by all group ages, meanwhile, color is a divertive preference.

Few children expressed the need to have access directly from the classroom to the outdoor. "Seeing that we cannot use the interior halls in the break time, why not to go directly out. In this way we go out without disturbing others who have classes."

Library

The library is located on the first floor of the building; going up the stairs it can be found on the left. It is one single space room. It resembles a seminar room more than a library. Several tables organized in the shape of "U" cover almost the whole space. It has big, large windows, which makes the library the brightest space in the building.

During the walk-through, the children mentioned the dissatisfaction at the library. Apart from the absence of books and comfortable furniture, they claimed that the space is small. The researcher depicted children's responses from all age groups and discussed with them the reasons for the prohibition on using the space. Although, the space has been designed for them, they do not have the permission to use it unless there is a special event as the workshop of this research. For this reason, they expressed their gratitude for being part of this workshop so that the library could serve something.

Gymnasium

Gymnasium is located at the back of the main building. It is on two floors single space. For this research, it is the most appreciated area in the building. Still, the youngest participants first experienced the feeling of being in its environment in the interval time of this exercise. They evaluate it as a very big space. Their desire is to have the right to use the gymnasium the same as the older groups.

Boys of the oldest group are more enthusiastic about the space. They can use the space to play soccer whenever they have some time off. They say it is the only space

in the building which is truly dedicated to children. Positive evaluation comes from the other group too. They exceed evaluation by asking for a possible outdoor gymnasium.

c) Common Spaces

The commonly used spaces in the building are outdoors, which were already mentioned above as entrance and circulation halls together with the multipurpose hall. Children's opinions about these spaces are as follows:

Entrance hall

The dimensions of the entrance hall are large and it is spacious. It is a highly illuminated space with plenty of natural light. The main circulation core is in front of the main door. On the left there is a hall of the classrooms and next to the main staircases there is a rear door that opens to the promenade that links the entrance the hall with the gym.

Children in general rank the entrance hall among the most appreciated spaces, mainly because of the natural light and the dimensions of the area. On the other hand, all age groups agree on the fact that in winter the space is extremely cold because the radiators are not functional

In summer "… don't affect us so much because we are on holiday. It might be too hot, but doesn't matter." said a 13-year-old girl. When it comes to the use of space, there is unanimity. They cannot use the hall in its full potentials. Teaching and administrative staff give no permission to access the space. Another thing the children claim is that there is no room for them there since it is overloaded with flowers.

The group of 14-15-year-olds thought of the universal design as well. In the project and in the building there are no spaces dedicated to them. The same sensitiveness is seen in one of the youngest participants of the research. He had experienced the lack of such spaces. With a broken leg his parents had to carry him two floors up in the morning and down in the afternoon for a whole semester.

Circulation

This three-storey building has long corridors. At both extremes of the school building layout are located the staircases. It is only from these ends that the corridors take

natural light. The walls of the corridors are full of posters that display information about different subjects at school. Long halls are without break out spaces. They are all painted light blue.

The children mentioned being attracted by the natural light and the large windows of the main staircases core. On the contrary, the children that follow afternoon classes complain that the halls don't take natural light. Another positive comment comes about the dimensions of the corridors. Users evaluate them as spacious. Meanwhile, concerns about the universal design are present in this part of the assessment too.

Multipurpose Hall

The multipurpose hall is an empty space on the top floor, directly above the library. In dimensions it is larger but they share the same illumination typology as the library. Large windows on two sides of the room provide a well-illuminated interior. For the time being this room is being used as the music room, not because it is furnished with all the needed musical instruments, but because it is empty and the children can listen to music loudly or dance in the music course.

Walk-through discussions indicate the poor activities the space offers. The children prefer the idea of freely discharging their energy by listening to music and dancing. They have concerns about the color of the space, its maintenance and the heat. They would like to change the colors and furnish the interior. The group of the youngest participants has never visited the multipurpose hall. However, it is forbidden for them to visit the second floor.

d) Other spaces

Other spaces that the children visited are the labs, the playroom, wet spaces, the painter room and the bridge. All the spaces are evaluated as dull because they do not use them. Labs are empty with no computers or experimental equipment. The playroom is only for young ages. Wet spaces are appropriate for different age groups. Painter room is only for the painter and not for the children. They appreciate the paintings but evaluate the room as small. Visiting the bridge was very exciting for all ages. It was the first time they had been there. Influenced by this experience, they brought numerous proposals for that area.

4.5.3 Children proposals after the walk-through evaluation

Besides being a useful source of evaluation, a walk-through is also a useful source of education. Through the trip the children learn to read the building architecturally. The trip was a reciprocal learning tool. The researcher learned from the children just like the children learned from the researcher. This mutual learning continued at the next step of the design. On the library premises, the children drew and wrote down everything they believed could bring change to the school building. During the process they learned how to read architectural plans, printed by the researcher beforehand. (Figure 4.28) The printed floor plans of the building in A0 format, as one copy for each group, are the medium where children proposed their changes spaces. They proposed destruction, as well as construction of different spaces.

Alisson Clark defines the walk-through process that is guided by the children themselves as a method of transferring the knowledge and experience the children have on their own physical environment physically, verbally and visually (Clark A. , 2010). Below are the children's proposals, synthetized by the researcher based on discussions the children do among themselves, on observations, drawings on the plans and notes.

Figure 4.28 : 14-15 years old children reading the architectural plans (F. Hysi).

a) Outdoor Environment

In the library environment, each group was asked to write their wishes and demands and, where it is possible, to draw the changes over the existing plan drawing. The children's suggestions were based on their evaluation and space concerns. They showed respect for each group member's opinions. Each group's proposal is illustrated in the figure 4.29.

In this respect, the outdoors and the other spaces were reconsidered according to groups. All ages proposed the water element as an inevitable part of the outdoor. Whilst two groups proposed and asked for fountains, the oldest group members asked for a pool.

Figure 4.29 : Proposals of three groups for the ground floor and the outdoor.

The youngest participants are for a fountain in the front yard circular in shape and surrounded by benches. They ask for more trees and flowers not only in the front yard but also at the backyard. The promenade at the back is proposed to be divided into segments that will serve different activities. Role playing, theatre and drama segments within the promenade, are what the youngest children like to see in that space. The basket and volleyball courts, which are located in the backyard, are criticized by children, who say that they should not be hardscape but wooden deck or grass.

The 6^{th}-7^{th} grade group was very enthusiastic. They read the drawings easily and from the proposals is seen the reflection of the walk trip. For instance, during the walk-through children mentioned the fact that the front yard makes an important

composing space because besides being used for lining up before entering the school building, it is also used for cultural performances. This group proposes widening the stairs in the main entrance so that it can be used as a stage whenever necessary. The corners of the yard are used as parking lots by teachers. Instead, children recommend a parking lot for bicycles. "In this manner we promote usage of bikes" says a participant.

A fountain, many trees and seats, as well as a reshape of the front yard is what children suggest.

At the backyard the proposals look more courageous. They propose a greenhouse and an educational garden. Yet, they go further and draw a narrow curvilinear aquarium that flows among the other spaces that the children suggest. A playground integrated with the educational garden and an open air pool next to the gymnasium are among other spaces that children think should be part of the school environments. This group of children, similar to the previous one, propose closing the promenade and generating there the longed-for cafeteria and a drawing corner. Cafeteria is a deficiency that all the participants speak out. Moreover, they propose small kiosks next to the surrounding wall that will function as small shops.

Though the third group of participants, that of the oldest age, showed a strong awareness of reading the plans, they were not so enthusiastic about proposals. There is not much to talk about their drawings either. You needed to push them by asking questions. All they proposed for outdoor areas is the need for dense greenery and a swimming pool.

b) Learning Spaces

As already mentioned, there are not enough learning spaces in the building. For this reason, the main focus was on the designing of the classrooms. However, in the proposals it is possible to find out more samples of learning spaces. The library and gym also had the children's attention.

Classrooms

By the end of the whole process, children were asked to produce drawings of how their own classroom could change. They showed different preferences and different techniques in participating. Some of them drew firstly the existing classrooms and then the ideal ones. Some others drew right from the beginning the ideal one arguing

that the existing situation is there and can be part of the research whenever it is needed. Techniques in drawing participation showed variations according to age and gender. Young ages and female participants gave more importance to the details than the shape or the form of the classroom. 10-12-year-old children drew the things they want to be in the classroom one by one. There were a few who also illustrated the classroom layout (Figure 4.30).

Figure 4.30 : Proposals for classroom layouts.

Meanwhile, the other age groups perceive the whole space of the classroom. Proposals and suggestions from girls are more colorful and more home like environments. Opinions were expressed even in the form of notes within the drawings, from where different preferred design features and space characteristics of the classrooms are revealed.

For children, working in groups is as important as individuality. Some children prefer personal tables during classes, some other suggest round tables. Figure 4.31 illustrates two drawing by two 11-year-old children; one asks for a round table the other considers “a classroom inside a classroom”; one for lectures, the other for reading, relaxing and storing books. Moreover, the second child asks for tables to

even eat lunch. The classroom is the “living room of a big family” says a child in the video recordings.

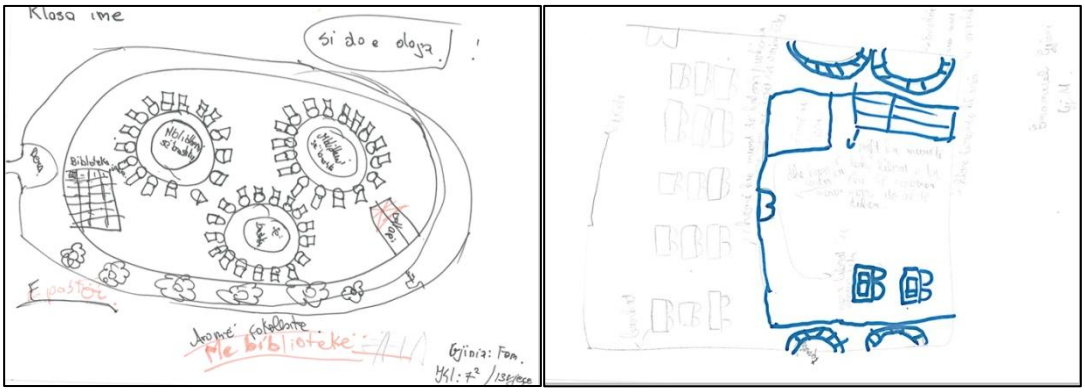

Figure 4.31 : Child’s drawing of the ideal classroom (age 11).

Children of the second group emphasize a rainbow of colors in the different surfaces of the classroom, be them tables, bookshelves, writing boards, lockers, walls, floors and even windows. This group, like in other steps of the research, showed a high level of enthusiasm in participation. Consequently, results are extensive in terms of stressing many different architectural and space organizational features compared to the others. Individual tables, round tables, two or three tables in a pattern organization and amphitheatre-like classroom organizations are among the proposals of this group. (Figure 4.32)

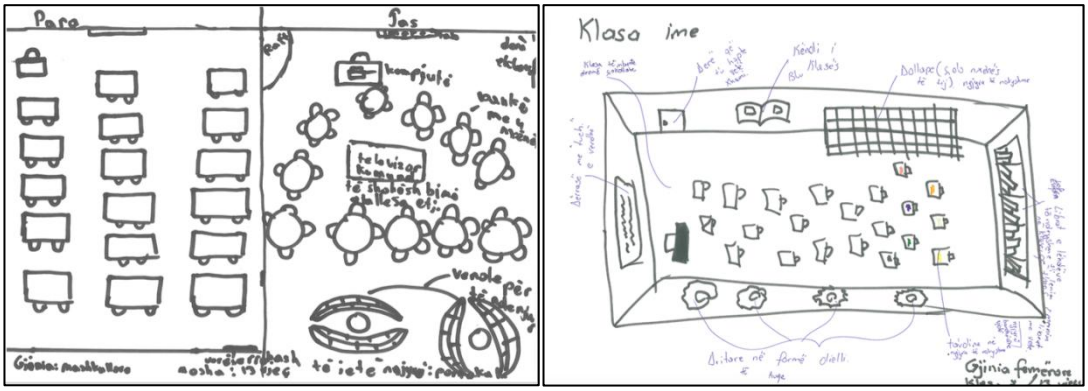

Figure 4.32 : Classroom organizations by two 13 years old pupils.

An interesting suggestion comes from a 13-year-old girl. Besides the colorful environment, which apparently is a dominant feature in children works (Clark A. , 2010),she plays with the form and the shapes of the compounding elements. For instance, she proposes a different shape table for every function; for lectures a table

with corners, for projects a round one; other tables triangular or in the shape of stars (Figure 4.33).

From the same drawing there can be seen individual, or not, pockets where different activities except teaching can be performed in the classroom. Relaxing spaces, reading corners or storage areas are among the activities children say need to be part of the classroom environment.

For the oldest group of participants, the results do not have so much difference. Their proposals for the classroom layout vary from individual tables to round tables. What sticks out in their proposals is the freedom they need in organizing their own classroom. Being alone or in a group during the course is a matter of the topic or of the mood, says one of the children.

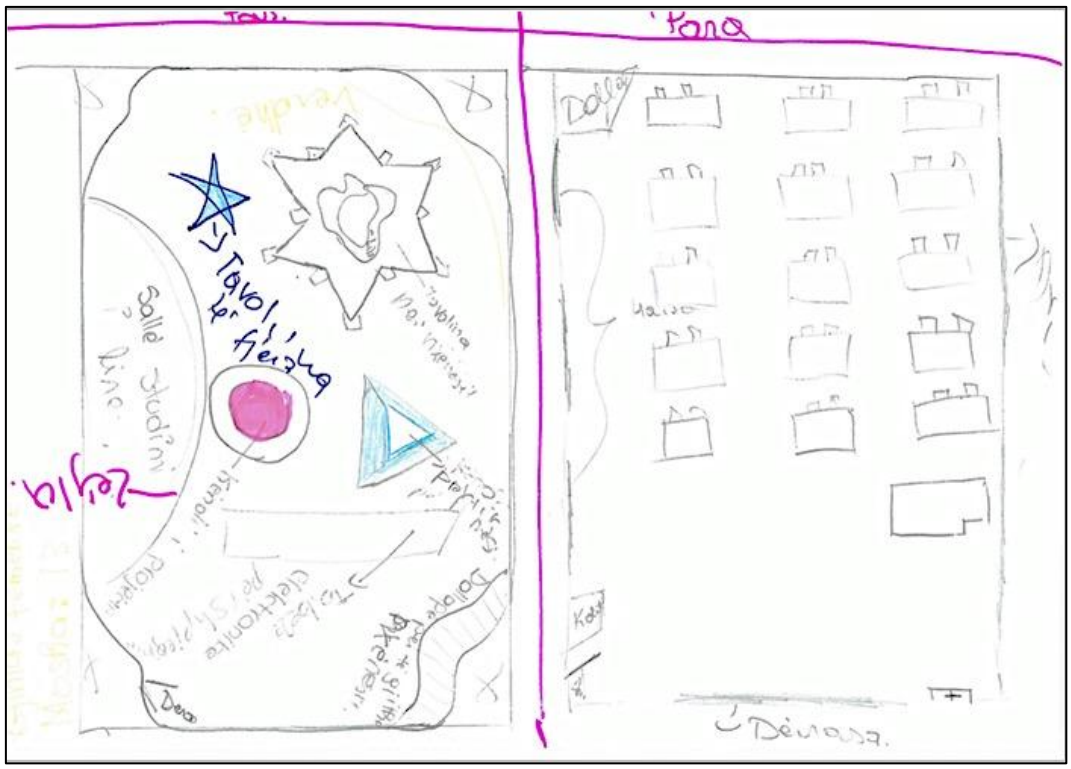

Figure 4.33 : 13-year-old girl proposal for the classroom layout.

A flexible interior would offer changes "according to the temporary needs of the classroom" comments another participant. Activity pockets and color usage have the same dominance in this group drawings as it has in other children.

When compared to the other groups' proposals, the only difference is registered in the female children proposals. In all 6 drawings of this gender (out of 10 participants

of this group) the girls dream of a home like environment. In their drawing there can be found flowers, carpets, curtains and even cushions (Figure 4.34).

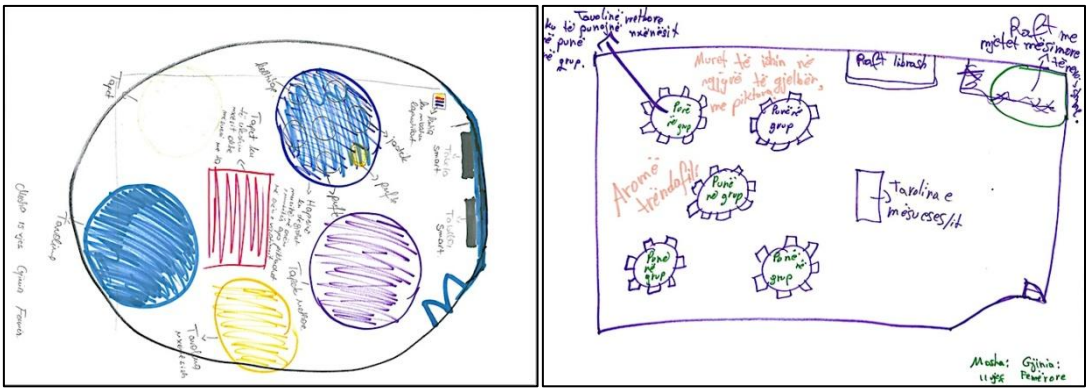

Figure 4.34 : Classroom proposals of two 15-year-old girls.

Gymnasium

The children's voices and their drawings reveal that all the participants have positive attitudes toward the gymnasium. The suggestions for changes are mainly on furnishing the space, the natural light, the color and the amount of space. "If there was more space all the age groups could use the gymnasium and not only during the official school hours" suggests one of the members of the first group. All group preferences are for the gymnasium as the only space where there is life in the school.

c) Entrance hall and Ground floor

The youngest participants' thoughts match those of the 6th and7th grade pupils. They propose using widely the now unassessed entrance hall. They think that furnishing the space may help them spend more time there. The school bell is located in the entrance hall. Children are disturbed by its noise and propose an individual bell system that rings in every classroom. In the project drawings and in the building there is a space dedicated to fast-food shop but, in reality it is closed. Children propose connecting a classroom next to it so that it functions as a canteen. They destroy the walls that divide these spaces from the hall which according to participants would increase the entrance hall space and would solve the problem of the dark long hall. Thus, natural light can illuminate the hall. In addition, children ask for the laboratories that are located on the ground floor and are not used, to be furnished with the needed equipment. Therefore, the classrooms in the northwest, according to children, would be given opportunity to directly go out in the garden. The older ages proposed only individual pockets in the entrance hall. They need

spaces to sit and spend time in groups, which is the reason why what they propose are group-sitting furniture

d) Library and first floor

The first group of children, which is composed of the youngest participants, would like to have a bigger library full of books. In the drawings they have indicated the need for library extension (Figure 4.35). Laboratories located on this floor are empty and not accessed. Children propose that they should be functional.

Figure 4.35 : Youngest group proposal for library and first floor of the buildings.

At the same time, they propose using the spaces according to their needs. From this floor there is an exit to the terrace of the promenade. Children propose closing it with glass and using it for different activities. Since they don't like to remove the image of the bridge, they propose a glassy façade and opened/folded roof top for putting in use not only the space under, but also its top.

To come to the views of the same group about the other spots of the building, the emphasis is on the play and prompt access to the outdoor. Analysis of the drawings display stairs that lead children right outside. The present playroom, not in use for the moment, is planned by the children to house different kinds of games. The second group have the same approach for the library. They express the need for wider space. This group's attitude is to play with the shape of the library as well. The

circular shape they drew would “solve even the problem of the ground floor, which does not have a stage for cultural activities. It will be a nice shelter for the rainy days” says a boy. The bridge over the promenade shows the same approach with the previous group; to close it and offer different extracurricular activities. This group, like the other one, displays the same tendency for accessing directly to the outdoor spaces. Stairs and even sliders, similar to that of the playgrounds, occupy the drawings of this floor (Figure 4.36).

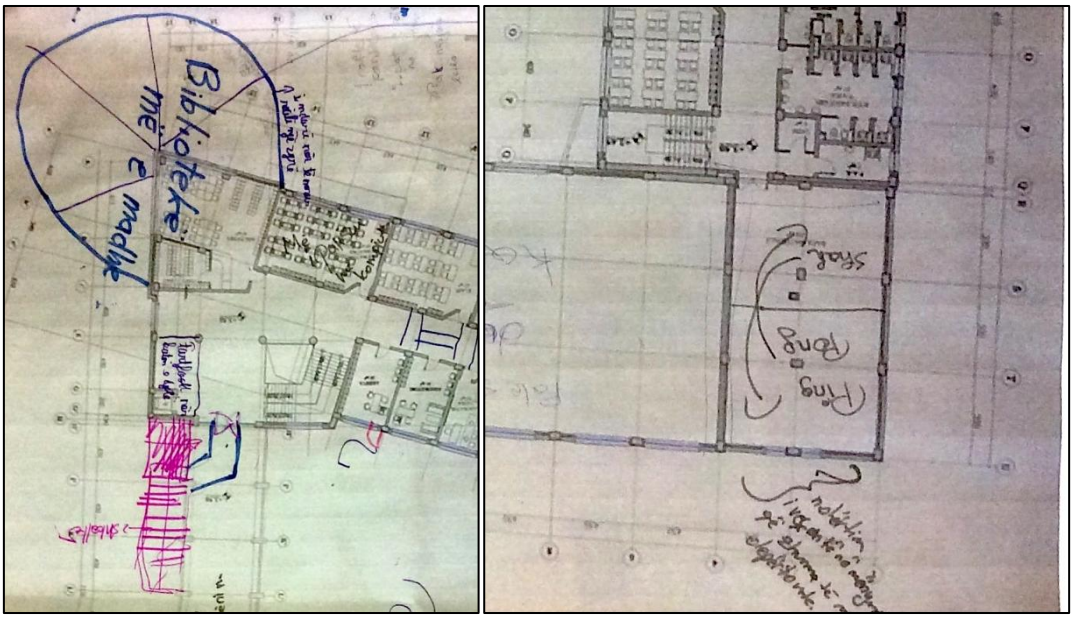

Figure 4.36 : Partial proposals for the library (left) and first floor spaces (right); group 2.

On the other corner (Figure 4.39, right), the space of the playroom is suggested to function as a chess and table tennis room. What children would like there, is to apply sound isolation. In this way, the noise that comes from the play room and gymnasium would not interfere the classes.

The third group, moves carefully. Their thoughts fit to the other children’s when it is to reconsider the library and the bridge of the promenade. They all are of the idea that the library should be have a larger space space and the bridge should house activities. They bring a solution to the lack of natural lighting in the long corridors by proposing an exit in the elbow of the two halls. Natural light should be part of the playroom, where they propose a balcony at the part of the gymnasium to be used for cheering during different sports match.

e) Multipurpose hall and the second floor

The youngest participants (two groups respectively) of the research visited the second floor of the building for the first time or have visited it two or three times from the time they have been part of the school. They find the spaces impressive, especially the space of the main hall, despite the fact that they evaluated it as an abandoned space.

Only the 7th, 8th and 9th grades can access the last floor. For this reason, both groups are of the idea that the main corridor should have one or several functions. The first group is for changing it to an exhibition hall, while the second group agree on proposing an open cinema for afternoon usage (Figure 4.37).

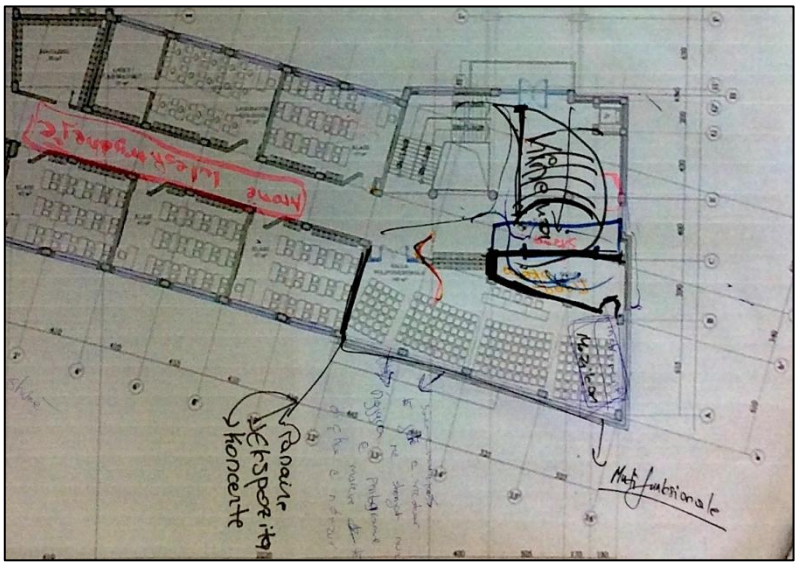

Figure 4.37 : Proposal of the second group for main hall in the second floor.

The now multifunctional space is proposed totally as a music hall from both younger groups. Children would like to feel the music and have the necessary instruments and the walls to be colorful and painted with the musical notes. “Let the second floor be only for activities, thus, there will be no class disturbance from the children that are having an activity” says an 11-year-old girl.

The third group agrees with the way the spaces are designed in the building as long as they function as such.

4.5.4 Discussion

The walk-through experience contributes to understanding how to integrate together POE and participatory design. It is an active process where benefits are mutual; firstly, children are motivated by the process and secondly, architects and designers

obtain children's viewpoints about the satisfaction level of school environment and about the conceptualization of its compounding spaces. Such a partnership is fruitful in terms of sharing environmental knowledge.

This step of the study identifies the interest of the children to organize or design the spaces rather than being an observer and only judging. The researcher observed that the children expressed no feeling of embarrassment while touring the school building. Their participation in this method revealed to be cooperative in that the children put in words the space experience without prising feelings of their own building, which children in the previous workshops displayed.

The collection of data focused on three methods. Children evaluated the building's physical performance with its strong points and deficiencies. 25 children were divided into three groups for a better management of the process. The walk-through was associated by a number of questions done by researcher in order to make the children think about the physical surrounding. Then, all the process was video recorded, which resulted to be a nice medium to note down all the discussions the children had among themselves. At the same time, it offered the possibility to compare the feedback the children gave about the quality satisfaction according to age and gender.

The third method used the findings and everything identified and reported through the walkthrough for discussing concretely on the architectural medium. Over the architectural drawings children tried to enhance the performance of the building.

Accordingly, several problems were identified from the evaluation and several recommendations were done by the end of the workshop. Results showed that children are more vigilant to the built environment when they know something about it beforehand. Walk-through methods proved to be effective for 11-15-year-old children. The 10-year-olds group is better in visual methods and individual proposals. This group age judges temporarily. They judge the moment. Their age shows difficulties connecting and linking their space experience and evaluation during the trip with the real on paper proposals asked from them for space improvements. Additionally, the researcher had to put extra effort to explain this group of children how to read architectural drawings. They understand momently, then they get lost in the drawings every time.

Children from 12-13years of age showed a high level of participation. They were always prompt and active during the trip, discussions and proposals. Generally, children of this group believe that their school is in good conditions and appropriate for learning. Nevertheless, they listed many features they are satisfied with. Natural lighting, amount of interior space, easy circulation in the building, cleanliness and the richness in the variety of spaces that the building possess, are among their positive reflections. There is a considerably high rate of satisfaction for the gymnasium.

Less satisfaction they displayed for the lack of activities to the corresponding existing spaces. For instance, in the project there is a space designed as a canteen, but which in reality is a locked and not accessible. The existence of the library doesn't change anything because it is empty. There are no books in that area. Furthermore, children are concerned about the school policies which restrict children's space use. Outdoor is used only two times a day, although these areas are the spaces that children indeed prefer frequenting most. The direct connection to outdoor is a dominant feature that reveals throughout the exercise. Floors are not an obstacle for them. In their drawings they propose stairs or other ways of connecting the interior to the exterior.

Providing personalized spaces revealed to have the same importance as sticking around in small or larger groups. This selection is not restricted to outdoor or indoor spaces, and is not even related to the age or gender of the children. They all ask for individual, small or large group pockets.

The age and gender characteristics showed different participation attitudes and even participation techniques. Young ages, though enthusiasts, do not show so much tolerance in the group work. Their technique in drawing is structured in listing the needs one by one.

Children age 12 and 13 are highly active and good team workers.

As for 14 and15-year-olds, the researcher has to encourage their creative expression and to maximize their potential of active integration. As team workers, girls are leaders.

The arrangement of spaces and equipment, as well as the use of color as a design feature, changes also according to age group. Seen in terms of gender, girls provide

more detailed drawings where spaces resemble home environments more than school spaces.

In general, the walk-through was effective because it was easy for everyone to express their opinions verbally. It is worth, because together with the other workshops children had gradually extended their design skills. By the end, they were able to evaluate physical environment, read architectural plans and propose possible improvements.

The children evaluated the process as an opportunity to look at the surroundings differently.

5. DESIGNING A LANGUAGE FOR PARTICIPATION AND THE CASE STUDIES

As it was explained in the previous chapter, the workshop pattern of two sets of exercises applied and practiced different participating methods in different levels of involvement. This assembly of participation tried to employ different forms of participation categorized by Lansdown (2011); being them consultative (W1, W1.1 &W.5), collaborative (W.1, W1.1, W2, W3, W3.1, W4, W4.1, W5) and child-led (W5). All these works contribute to the significance of children participations as described by Chawla (2001), not only to enable children to state their opinions freely and to make them feel important, but at the same time to achieve data that help in designing and deciding together with the children.

To accomplish such a goal, the researcher used a variety of practices of participatory design;

-workshops,

-open discussions (forums)

-graphic and verbal representations

-social media

Consequently, this research is defined within the scope of children participation in evaluating and designing/redesigning educational buildings. It is confined in children space perception, methods of participation and post occupancy evaluation as an assessment method. In this context, besides enhancement in the spatial understanding of the child space perception, the method of participation and methods of POE as an evaluation method by both children and researcher, advantages and disadvantages in each case are part of the research. The study so, is an empirical process in search of finding out a communication language for connecting adults and children in a design, re-design or POE process. This language comes out as a result of the entire tracing process in a scenario. This chapter will bring a discourse of the previously mentioned assembly in the light of the set of workshop conducted.

5.1 A Review of Evaluation Criteria and Empirical Findings on Child-Adult Collaboration

Everyone accepts children as an important component of the society together with their own settings (Clark A. , 2010). Sue Dockett and Bob Perry (2011) state that in their investigation the focus of the researchers was transferred from working on children to working with children. The latter is no longer new in a participatory research. Working with children on its own embodies several perspectives on the dimension of the children participation. (Sanoff, (1990), Hart (1992), Driskell, (2002), Francis and Lorenzzo (2002), Kudva and Driskell, (2009), Tisdall at al., (2006), Shier (2010), Wang et al., (2011) etc.). Besides children consideration in working with them, participation is born as a necessity to change or do something new. Adults are always defining and exploring these demands. Thus, the interaction between adults and children is beneficial if it is direct and collaborative. After being informed on what they have to do, children themselves should choose to contribute. Pushing them to participate without knowing the intent makes the participation "non-authentic" (Chawla L. , 2002). When the actors in participation process come together, an effective communication between them is essential. In case of the right collaboration the children are not only clients who architects work with, but they are team members that promote working together. Based on the fact that participation comes as a need to change or develop something, it might be then a participatory language or an architectural object.

The research of this study was designed in order to test participation as a collaboration process in a close relation to POE. The manifest explanation of the study will propose that attributes of an overlapping of POE as part of space experience with children, with or without a previous training, would bring a pattern, matrix of children being involved constructively.

In this section, therefore, takes place a discourse of qualitative data generated from the raw data, which appears to be multiple and which are collected from different materials produced by children. Drawings, essays, collages, posters, poems, photos, reports, maps and models, POE questionnaires together with observations, conversations with the children and a webpage in social networks comprised a wide range of raw data. Their value as qualitative data is based on the "rich description

and explanations of processes occurring in the local context" (Miles and Hubermann, 1984, p.15). Discourse analysis is the study of the hidden. It aims to find out the deep meanings by paying attention to grammar, intonation or vocabulary in the examples of the spoken language. However, it is not a method that the research is based only in language. It is a qualitative inquiry approach that studies the psychological phenomena of understanding the reality. Researchers (Wiggins and Riley, 2010; Seamon and Harneet, 2015) argue that language does not always expresses or reflect the reality, instead it opens up possible active formulations of understanding the reality. In this respect, researcher analysis the direct communication with the children, and other outcomes from the tools used in the research to profit an indirect knowledge about the participation discourse.

5.2 Spatial Understanding and Qualities of Children Participation

The multi-method empirical research of this study includes participation in different forms. There is no reference of a continuous consultation oriented method in the workshops with children. Contacting the children only once in a while leads to the risk of designers and architects forgetting about the use of the environments and child oriented school spaces. A constant and repetitive communication keeps the researchers and designers awake with the changing needs in terms of spatial arrangements.

The results of the study provide enough evidence that children are sensitive to the everyday used environment. In all the exercises with the children from 10-15 years of age, which corresponds to second level school system in Albania, a high level of space perception is observed.

First of all, the participants who in total are 502 for all the workshops, have a good spatial understanding of the surroundings. They are of the idea that the school buildings are the main living space for children. Pupils have a strong relationship with the school environment as a place that belongs to them. It is not only education that is learned in the school buildings, it is more than that. They consider the school as a place to have fun and friends. In terms of age division, young children gave more significant importance to fun spaces and learning spaces; meanwhile, for elder children significance is positioned in spaces to have friends and spend time with. In this context, the child perception of space has a vital position. Piaget has studied the

children’s actions in different situations during the process of child development. These actions, according to Piaget, are the ones responsible for building the child perception. (Piaget & Inhelder, The Child's Conception of Space, 1956). He has proved that the spatial development of children has two levels: the level of perception and the level of imagination. With the child’s growth these two levels are inseparable even for the individual’s consciousness, which gives way to cognitive development. (Piaget & Inhelder, The Child's Conception of Space, 1956). He goes further and says that there are four factors dominant in child mental growth. Accordingly, they are emotional feelings, physical development, experience and socialization. The surrounding environment plays an important role in this mental growth. It is commonly accepted now that the space shapes the humans as humans shape the space. Consequently, as previously mentioned, spatial perception is based firstly, on what Piaget says, factors for human mental growth. Therefore, it is the emotions, experiences and the children’s thoughts that matter in this research. All the applied methods are used for understanding children and their spatial perception and for discussing creative and evaluative methods in a participatory practise.

According to Piaget, spatial representation is related to different child skills. Thinking, talking and drawing are among the basic representational skills. These abilities vary due to the physical and psychological changes of the kids. For example the spatial representations are arranged based on some elementary relations, says Piaget: “proximity”, “separation”, “relationship of order”, “enclosure”, “continuity” or “ discontinuity”. (Piaget & Inhelder, The Child's Conception of Space, 1956).

Based on these aspects of child development, the experiments of this research find out the space utilizations and assessment according to child perception through spatial representational skills. Visual representations in this research show differences not only according to age but also according to gender. For example, the same space is expressed differently by the same age girl and boy and at the same time differently in two boys or two girls of different ages. For a 10-year-old boy, a computer room is a fiction environment for playing interactively, but for a 14-year-old boy, it is only a room where computers are ordered in row. Furthermore, for a 10-year-old girl, it is a space where they can watch cartoons and for a 14-year-old girl, it is a space like home where they can feel comfortable and stretch in an armchair. Children so try to archive relationship way of spatial representations.

Visually, the drawings give enough clues about the child's spatial representations and their interests and perspectives. Children disrobed the school environment based on their experiences, in which learning and education are a priority and fun spaces are the school space components where they gave themselves the right to set free their imagination.

From the researcher's observation, by using a content analysis method (Ziesel, 2006), the visual and written spatial representations of the children are grouped into a set of classifications. Classifications are done according to spatial qualities, spatial functions and spatial feelings that the children displayed in the participation techniques of the research.

5.2.1 Spatial features

A discourse on framing children participation is a dimension that develops as the kids grow up and mature. In order to bring forward issues of spatial understanding, spatial features are present with a special attention in the participation practice. In the workshop pattern of this study, which as early mentioned is composed of participatory and evaluative methods, quantitative and qualitative data are provided. In quantitative data, mostly gained from questionnaires, numerical information of school spaces and school image preferences are found. Moreover, rating scales of the school preferences are analysed by the end of the workshop 4 and 4.1. The other workshops provide more non-numeric qualitative data. This does not mean that the questionnaires do not give clues about qualitative information. In order to provide a rich understanding of the children participation a combination of both quantitative and qualitative data analysis is incorporated in this analysis. To achieve the data in table 5.1, the researcher looked for commonalities. She completed several reads, an investigations and documentations of all the provided materials. Through this process she concentrated on the spatial features of the school building presented by children, with the aim of spotting particular outcomes. In other words, the researcher completed a "framework analysis" (Pope et al. 2000) together with a content analysis to classify and summarize the contents (Bernard, 2000). Spatial features are coded referring to Bernard (ibid) in order to mix the qualitative and quantitative data analysis. The table below comes as a result of the interpretative and analysing process. Counting, clustering, comparing, matching and relating findings are some of

the tactics that are proposed by Miles and Huberman (1984) and which are employed in this research to generate the following data. The data analysis results reveal that the most prominent spatial features are color, furniture, size, light and the least prominent are features such as shape, sound and odour (Table 5.1). Despite these features, children assess flexibility in design and hyper surfaces as important components in the school buildings.

Table 5.1 : Frequency and percentage of the children's preferred spatial features and the methods they have expressed the preferences at. (no= 502).

Categories	Frequency(n)	Percentage (%)	Aspects	Method where is found
color	453	90.2%	Colourful environment	Drawing, essays, poems, models, evaluations, walkthrough
Furniture layout	502	100%	Furnishing the spaces with proper equipment	Drawing, essays, poems, models, evaluations, walkthrough
Size	378	75.3%	Diverse size upon needs of space	Essays, drawings, evaluations,
Natural Light	281	58%	Need for natural light and control of it	Essays, evaluations and walkthrough
Shape	189	37.6%	"spontaneous geometry" of Piaget and cartoon movie visual representation	Drawings, evaluation, essays
Odour	70	14%	Chocolate, roses, flowers, books, ice cream, strawberry	Poem, essays, drawings
Sound	56	11.1%	Music, bell	Evaluation, drawings
Flexibility	40	8%	Moveable ceilings, interactive hypersurfaces	Essays, walk through

It is identified from the research that the colorful environments are what children propose most for the school buildings, what appreciate most in the visual questionnaires and what criticize most in the assessment. The older boy participants are the ones indifferent to color use in the built environment. Reasons for lack of such a feature in the boys' spatial representations may vary from forbearing and lounge (from the researcher's observation) to giving priority to other space attributes and forgetting to deal with the color element. Children displayed an influence of the everyday political life in Tirana. They are critical to application of political colors in the school environments in case the aim of the investors or designer was as such. Regarding the way they have expressed their opinion, the color as a feature is present

in visual spatial representations, in drawings and sketches, but also in verbal space descriptions

Furniture layout is among those features that children persistently gave priority. It never misses in any of the representational methods. Indeed, furniture as a space component embeds almost all other spatial characteristics found out in this research. For example, children like colorful furniture and propose it in their drawings and written tasks. Tables and chairs are of different shapes and colors. Children provide another dimension for the interiors, with carpets and curtains. Additionally, they say that besides offering a warmer environment, curtains serve as natural light control (Figure 5.1).

In the same line, furniture also embeds odour and sound features. Such a characteristic for this research is typical of 10 and 11 year-olds. Their proposals focus especially on the playground tools. Strawberry flavoured playgrounds or music halls can be spotted in the provided representative sample drawings.

Figure 5.1 : examples from outdoor and indoor furniture children propose.

Yet more, they would like to have hypersurfaces in the building so as to have interactivity. In the visual questionnaire experiment children communicated their appreciation for friendly furnished environments. Still, the furniture layout pulls out to be important even in the evaluation techniques. The participants own building is criticized for the lack of the needed learning infrastructure such as empty laboratories or empty library.

Size is another spatial category noted in the research results. Children showed not a special dimension perception. In most of the drawings the proportions and distances are neglected. Children's real space perception does not correspond to the space they represent visually. The size understanding so, is more evident in the written and oral

spatial representation techniques. They express the need for space in indoor and outdoor areas. High halls, large courtyards, big sports areas are all mentioned in the essays. 75.3 % of the participants refer to the spaces with adjectives like: “big’, “small”, “large”, “high”, “narrow”, “spacy”.

From the children products, natural light consists to be an important parameter. The data suggest that in written and oral participation old ages are better when it comes to spatially representing natural light in the built environment. Younger ages, on the other hand, besides the good will to participate, have fewer suggestions related to the natural light element. However, all the children who thought about natural light (n=281) highly preferred natural light or give highly positive remarks to the school building that make use of such spaces. For example, a 12-year-old participant wrote, “I wish my school could have giant windows”. A 14-year-old boy’s dreams are to have “moving ceilings” so that the interior would be full of light. But, children also criticize the use of natural light without control. A group from the walk-through experiment discussed about classrooms which, according to them, have a nice natural light but they also have problems with heat and glare. Like this, there are other comments of the participants (mostly verbal), which show a good understanding of the natural light (mostly based on experience) with its advantages and disadvantages.

Although shape does not show conscious understanding compared to previous spatial features, it is obviously present in all representational methods. Nevertheless, older ages show a more conscious search for form and shape, and boys are more courageous in the search of form compared to girls. Drawings, as the main spatial representational instrument in shape understanding, are categorized by the researcher into three groups: the group of works that have visual representations with the help of strictly geometrical forms; the group that makes use of sophisticated geometrical forms and the group that shows influence of the cartoon movies or of a before experienced spatial environment. The first group illustrates the thoughts through basic geometrical shapes they know (Figure 5.2). Drawings are based on triangles, squares, rectangles and circles. Such an approach is more visible in young ages, but the old ages as well take a ruler and start drawing. This group is mostly composed of the children that don’t trust their drawing abilities.

The group that uses more sophisticated geometrical forms has at the same time a better understanding of three dimensional representations. In fact, all the children

chosen for this research have a spatial understanding. In the drawings there is a sense of perspective and 3D representations. In fact, it is part of the curricula. They have learned it in drawing courses. Children express the spatial depth, what is near and what is far (Figure 5.3).

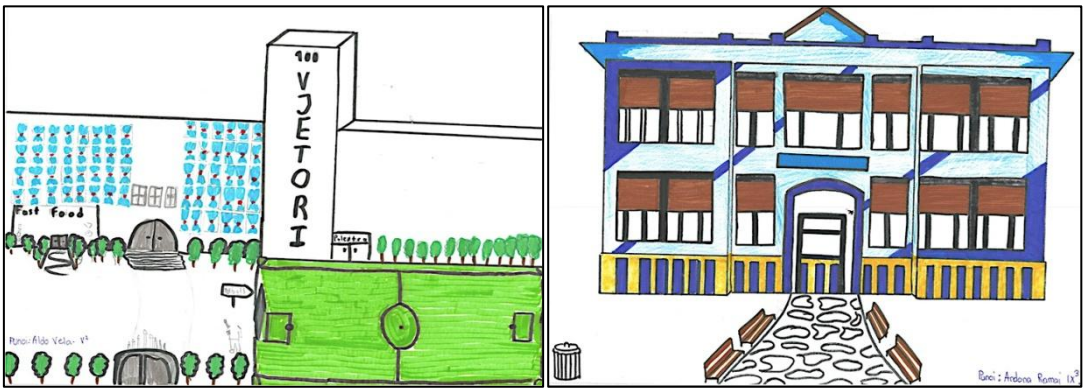

Figure 5.2 : Two children of different ages (11 and 14) drawings, using geometrical shapes.

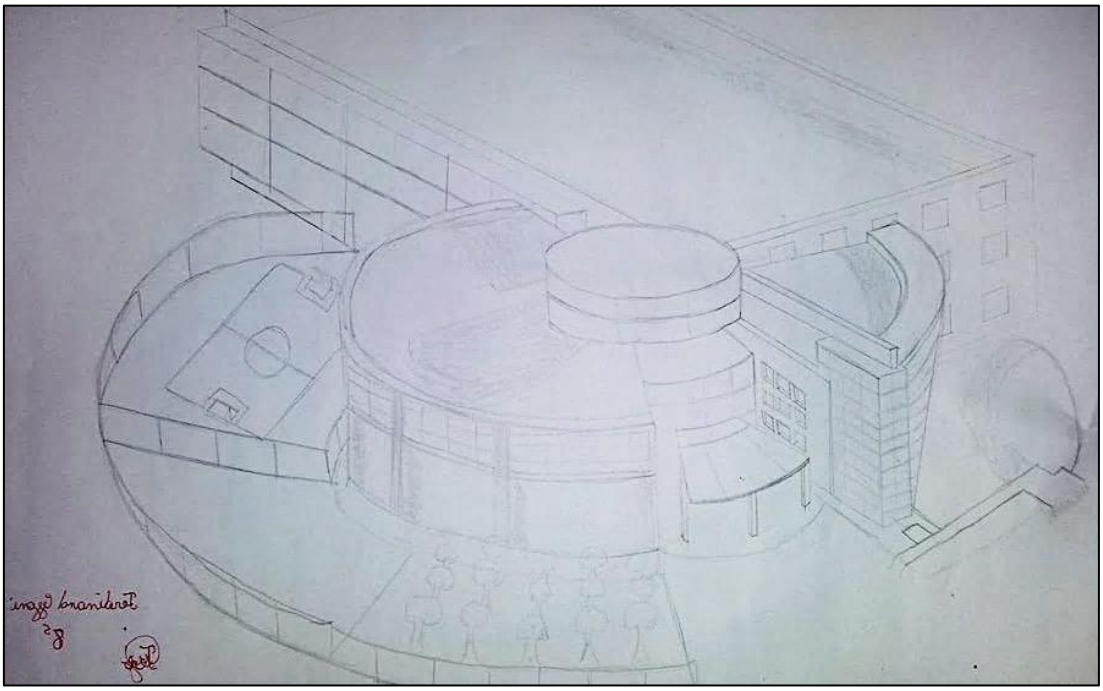

Figure 5.3 : Use of sophisticated geometrical forms from a 14-year-old boy.

The third group, is the group of children who are self-confident about drawings. They rely on their experience or imagination. Cartoon movies and the personal background of the children is essential about this group. They produce shapes they have a knowledge about. For example, a kid from the first workshop produces a church as a school environment (a boy with Spanish nationality) or a school building

similar to traditional houses in Albania and another one a DNA-structure-like building or a building that is fiction (Figure 5.4).

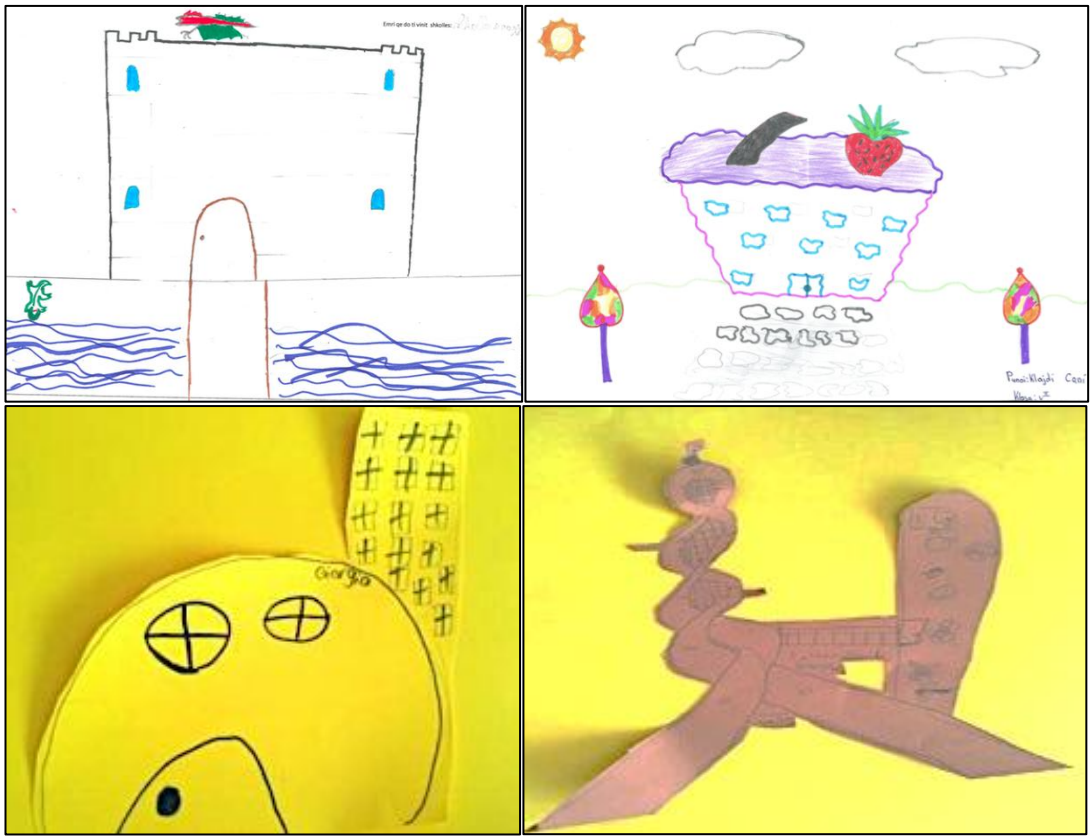

Figure 5.4 : children proposals for implementing different shapes.

In this group the children trying to resemble the building to something should not be excluded. Symbolical shapes are present in the drawings as well as in the writing. A School that resembles a book or a school building that is constructed like the letters that write school are among the representation of the school buildings (Figure 5.5).

Actually, in the visual questionnaire experiment children showed a keenness to bizarre-looking buildings (Justus-von-Liebig-School, Germany), which look more like a fairy tale building.

In fact, the research had different stages in producing drawings as the main medium for visual representations of space. Children who decided themselves on the size, scale and proportion of the school buildings and its components, produced spontaneous drawings (the workshop in different school buildings within a time limit) or a continuous drawing after achieving more information about the building architecture of schools (case of 25 children). In both cases, the children brought what they have in their mind and imagination about the school building's form and shapes.

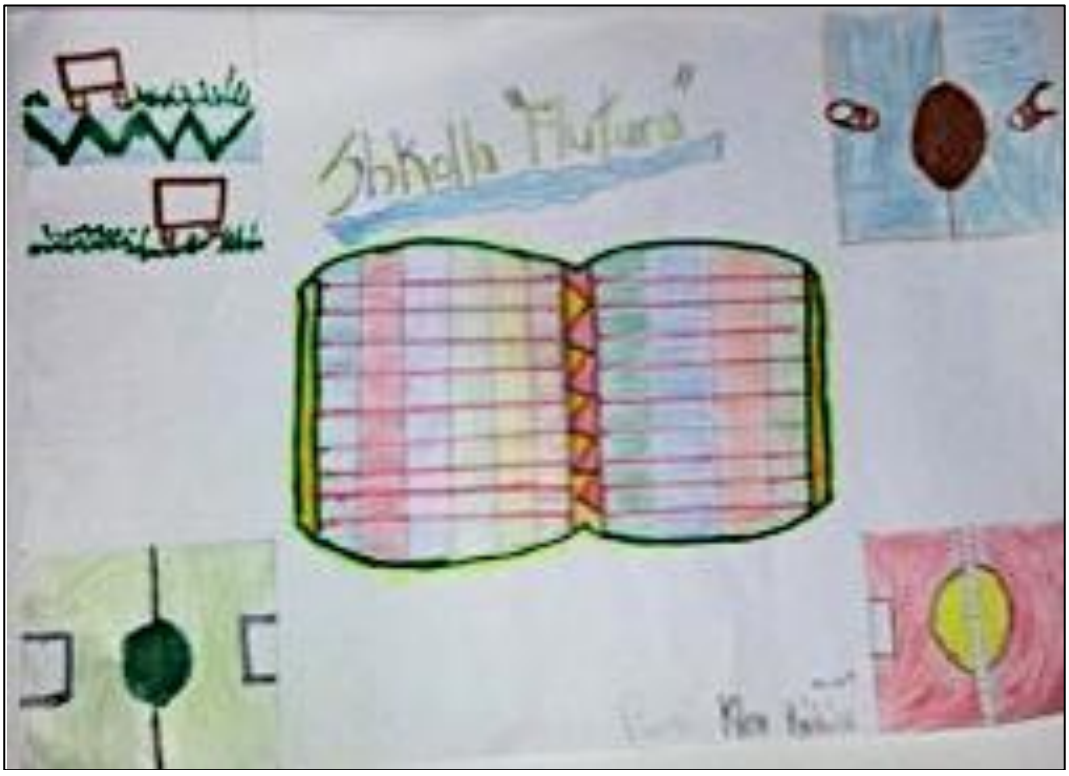

Figure 5.5 : Symbolic shapes used in the school building proposals.

The other features children mention or drew are about odor, smell and flexibility in buildings. Visually such characteristics are difficult to express, except the cases where children have written notes on the drawings. The best way to take children's thoughts of these features are essays, "I wish my school…" and poems. Participants write directly about the smell of the school buildings or the music they want to listen. On the other hand, they have concerns while evaluating their own buildings: the noise of the bell within the school halls and the noise that comes from the outdoor sportive spaces which are located next to the classrooms is disturbing the lectures.

5.2.2 Spatial functions: Emerging spaces based on participatory design

This research examines the series of spatial functions participants have proposed or evaluated through the sequence of exercises. There were instances, in almost all the workshops, that open perspectives about the school building spaces. The study composed of multi-method research, has a pool of data, whose categorization in order to find out what children spaces are composed of in a school environment, is a necessity. Based on the participants' views, the emerged spaces are possible to be clustered as utility based, namely (i)education/learning spaces, (ii) socializing spaces, (iii) individual/personal space, (iv) fun spaces.

Besides, the categorization of the spatial functions, methods and techniques used in the research dictate specifications about the children skills on spatial understanding. Thus, "I wish my school…" poem is a strong tool that helps in expressing the free spirit of originality in kids. This method achieves the aim: "free flow of information" (Sanoff, School Building Assessment Methods, 2011). Visual representational methods and the last organized walk-through workshop gives the designers clues and contribution about new or adopting designs. Though children can not express themselves by visuals are easily expressed verbally. Nevertheless, the children responses which share the same spatial requirements, despite the methods use, are summarized in table 5.2. Spatial appreciations, needs and dreams are reviewed as below.

Table 5.2 : Spatial requirements according to children responses.

Learning Space	Social Space	Personal Space	Fun Space
-classroom	-canteen	-personal space in	-playgrounds
-laboratories	-halls with sitting	classroom	-cinema (in/outdoor)
-learning gardens	corners	-p. space in halls	-sports fields
-library	-outdoor sitting areas	-p. space in library	-pools
-art classrooms	-after-class spaces	-p. space in outdoor	-aquarium
-greenhouse	-exhibition corners	-p. space for personal	-fountains
	-multipurpose hall	belongings	-activity pockets
		-infirmary	-playroom

Spatial requirements are directly connected to the activities that children need and prefer to do in the school environments. Learning and playing are the work of the children. Their activities are strolled around these two main behaviours. Learning is present in all children preferences. This demonstrates a high desire to have the opportunity to have the classes outside in the nature. Children claim for outdoor use in all the activities summarized in the figure 5.6, despite the age differences. Simultaneously, playing is an activity that all age groups like, all in their own way. Besides playing with friends, on a computer or sportive games, younger participants like to play in the playgrounds and with the toys. Older groups, prefer sports and computer games.

The need for computers, outdoor spaces, pools or water element and eating area are among the top requests of the children.

Indications are present in all the methods used in the research. In the drawings, outdoor spaces and watery areas are more present, while in the other modes of participating such as writing, discussing and evaluating children comments are

characterized among this set of requirements. Along with the age requirements are the gender demands. Girls of the oldest group of participants, for example ask for spaces for fitness or for modelling, while boys of the same group spaces for football play or for practicing as a hard rock music group.

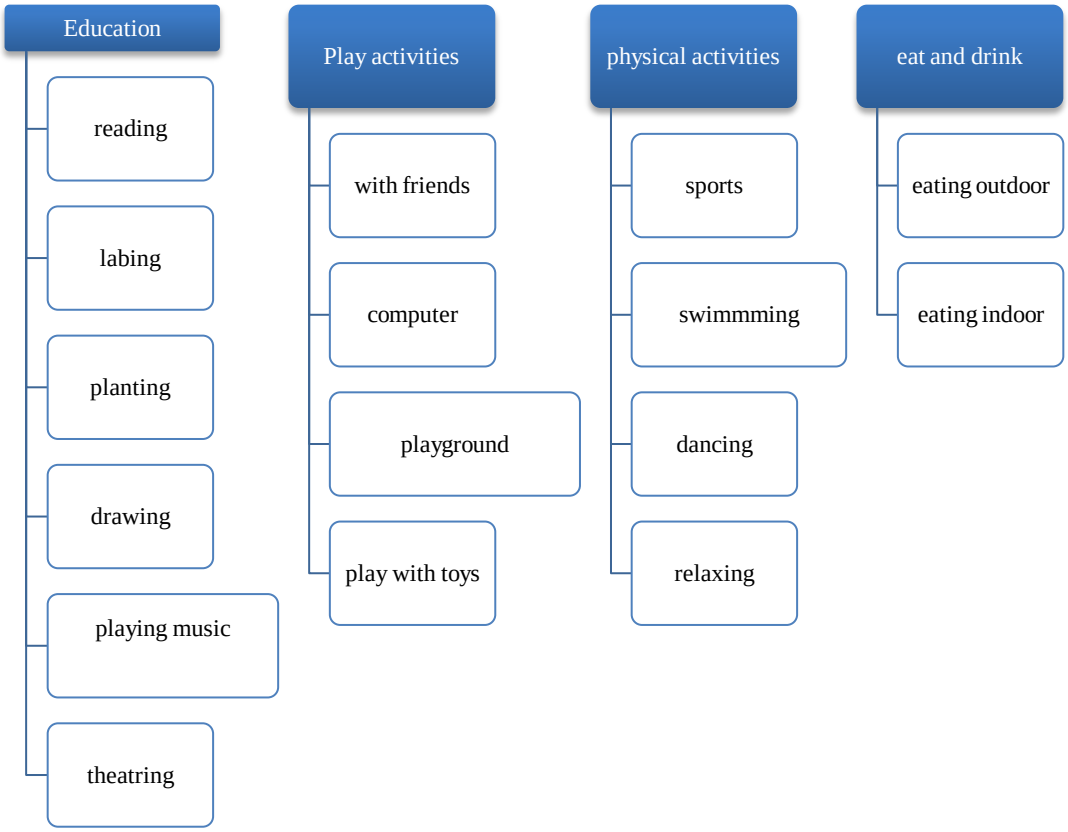

Figure 5.6 : Categorization of the activities claimed by children.

To sum up, the results demonstrate that drawings are more difficult to express child space understanding and age and gender requirements produce different spatial functions requirements.

5.2.3 Spatial feelings children demand and demonstrate

The research discusses the feeling of the children under two axes. Firstly, it explores what kind of feelings children have or want to have in a school environment, and secondly, based on the researcher's observations it has a discourse about what kind of feelings are awakened by means of participation.

The research finds out that there are some indications that communicate a bond between memories/experience and space. This connection gives shape to the feelings children come through in the existing spaces or would like to have in their dreamed school buildings. For example, a child that misses his home country proposes a school building that looks similar to the buildings at his birthplace such as the case of the Spanish boy in the first workshop who proposed a school building that resembles a church. This relationship to spatial experience and memory is enhanced in the group of 25 participants who were involved in all the exercises of the research. Over time they got familiarized to participation and were much more aware of spatial features of the school buildings. In the workshops they refer to previous exercises, discussions or investigated good examples. It is observed from the results that the feelings about the spaces are expressed in two manners; directly with the help of the verbal tools and indirectly from the drawings.

In the evaluation of their own school buildings (POE) children express their feeling that it isnot hard to understand that it has to do with what they experience there. Children do not fully use the building, which results in a lack of space familiarity and which consequently is an obstacle in forming the pupil identity. Older children seem to be more aware of this fact. They believe they would feel more like “pupils” and not like prisoners if they had the right to use all the spaces in the building and did not have so many rules preventing them from feeling comfortable. Young children are more adaptable to the the space and the rules, but similarly they express the desire to move freely and access the spaces within the building. It is clear that the relationship user-school building opens up to harmonious childhood or a delighted pupil life or on the contrary to a forced educational system.

The emotions that are associated to the spaces in the school building, carry some values which judging from the participating methods and products are a kind of agreement to classify the feelings observed in the results of the exercises. Common comments and similar visuals are other indicators in the classifications of the feelings. Table 5.3 points at the contribution that the classification would have to awaken positive spatial feelings in children.

In this research spatial feelings are treated even with respect to the kind of feelings children demonstrate within the participation processes. In this context, the study experimented participation in different venues; in a classroom, in the school

environment (out of the classroom), in a university campus and at home. In all the cases children were exited about being pat of the research. There were also cases where some children were bored and unwilling to participate. In such a situation the researcher let them free to go out and return as they wished. Nevertheless, participating in the classroom environment gave the children the sense of confidence. They are full on the exercise and unconstrained by the surroundings. They are on their own habitat. This situation is not valid for some 14-year-old participants. A tension is registered because they transmitted disbelief in the researcher taking in consideration their opinion.

Table 5.3 : Children spatial feelings and research implications.

feelings	Example	Individual/shared	Dominant age	Dominant gender	Research implication
freedom	-space usage -expressing opinion -adopting spaces	shared	All ages	Both genders	Essay Wish poem walkthrough
happiness	-equipped spaces -recreational spaces -technological environment	individual and shared	All ages	Both genders	Essay Wish poem Walkthrough drawings
dream	-fairy tale building -cartoon-land -imaginary building	highly individual	All age groups	girls	Drawing, Essays, Wish poem Visual questionnaire
ownership	-the school should not be worse compared to the others	individual and shared	All ages	Both genders	Visual questionnaire POE
feeling home	-carpet -sofas -curtains	highly individual	All age groups	girls	Drawing, Essays, Wish poem Visual questionnaire
security	universal design Security personnel	shared	All ages	Both genders	Essays, Wish poem POE Walkthrough

Participating in a space other that the classroom and a walkthrough method which goes around the whole building seemed to be a mechanism that made children feel privileged. The 25-children group had this privilege. They were chosen by the teachers to participate, which they evaluated as an opportunity against everyday oppression. At the same time, they expressed serious attitude in involvement and felt partly responsible for the designs and thoughts they could bring about. Young ages and girls, of the same group, showed a greater anxiety, which was controlled during

the exercise and turned out to be a positive feeling. Participation in the walk-through experience also provides the dimension of emotional experience. The direct interaction the researcher has with the participants, besides enhancing the rapport among them through discussions and gestures, also enabled observation of child space knowledge and emotion.

The results of the works of children who have participated at home demonstrate a commitment that may may come due to having more time at their disposal or working in a relaxed environment out of stress or pressure.

Participating out of the school spaces, in this study in a university campus, has its own excitement from the children's point of view. The direct approach to a new environment directly awakens the explorer feelings in children. Considering it as a new experience motivates the children to be more engaged in the tasks. They expressed the satisfaction given by the escape from the daily routine showing tolerance and solidarity with friends in case of group works and with the researcher group.

When all the spatial feelings children develop through the research are combined with the proper architectural space, participation is possible to come out as a result of children experience.

5.3 The Assemble of Participatory Design Model

The model that comes out of this research identifies how researchers may be involved at the different stages of participation according to the data in need. The schema that is developed is based on a summary of the exercises with key elements, products and limitations to make clear the role of the conducted workshops.

5.3.1 Evaluation: The key in the participatory design model

With the aim of organizing the complexity of the methods and results that come out of the study, the matrix highlights the importance of the steps and guides the way to handling the participation sessions. The process presented here gives clues for conducting workshops with the school, by school children and children's school environments.

Through the different stages of the research the role of the workshops is to explore different options that participation offers with the dimensions that Hart (1992) had described. The first schema (Figure 5.7) has a stepped organization; the first experience affects the second and so on. This is the way Hart's ladder of participation is generally explained.

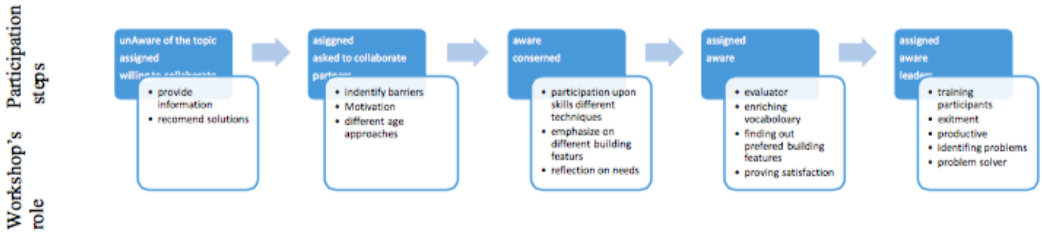

Figure 5.7 : Steps, stages and workshops roles in terms of user participation as a matrix.

Looking at both schemas and the results, the researcher has observed and come out with an issue that affects the language of participation. Although the exercises are conducted in different venues, are based on different child backgrounds, different times or different methods, the main influence seems to be the resources.

On the other hand, the second schema (Figure 5.8) has a complex relation. Process results are influenced by the experience and the results of other exercises.

Primary resources seem to be the everyday used school buildings but their own background, visual questionnaires or discussions with the researcher have their considerable influence. Hindmost, discussion with the researcher records an enhancement in the quality from the beginning to the final workshop. It is observed an incremental improvement in terms of data collected, from the first toward the last workshop. The research found out that there is a correlation between the researcher's competency and the children's participatory success rate. The improvement of the researcher's knowledge on participatory design processes and knowing how to deal creatively with spontaneous situations during the workshops, is as important as the child's participation and contribution. A child that participates once may lack decision taking skills compared to a child that is involved in several stages of participation. Moreover, the latter develops an ability to see the surroundings critically. As participants, children form an active system of relationships based on the experience they gain in each workshop. The relationship is a dynamic matrix. Children of the group of 25 children, over time, understand the experiments and the

importance of participating. They realize their own power to be individuals with equal rights.

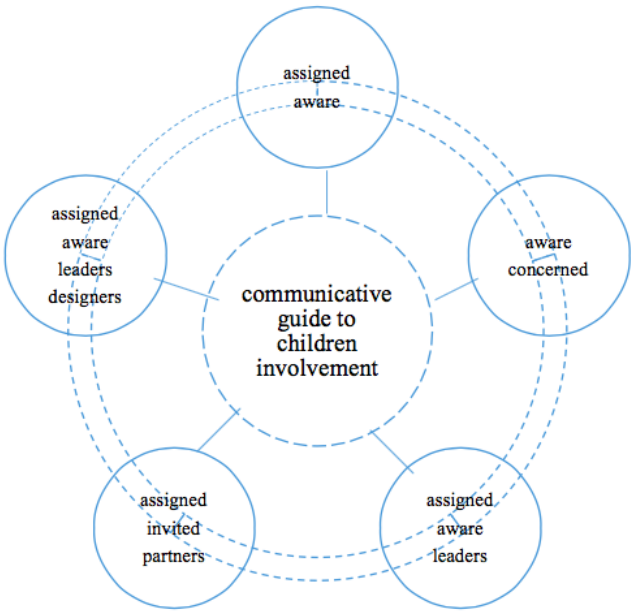

Figure 5.8 : The way the children in the workshops are involved toward feeding the final result.

From this empirical study it is observed that each type of participation is possible because participation is a simultaneous relationship to achieve a deal. The key is how to have a fruitful relationship. The active direct interaction leads to production of a common language without which the achievement of a common understanding between the partners would be impossible. Looking at the role of the workshops (fig 7), many exercises where participation was practiced, bring results that are connected to the children's spatial needs. Through different participating and evaluating tools, children in person or as group communicate whatever goes wrong with their own school building. Evaluation lies in the common ground of the proposals.

5.3.2 Flexibility in a participation model

The system of participation is a complex practise. The models need detailed information for a correct and effective participation. It is the process itself that tells about the functionality of the model, though the children as participants do surprise the researchers and she/ he should know how to manage the situation. There is not one sample of an effective solution to participation. Hence, flexibility or adaptability in the participation process is a strategy preferred by children themselves in a process. This may be because; first, children are interested to participate in activities

related to their own school building. On the other hand, they may get bored during the process. It doesn't matter in which step of the research study they enter or leave the exercise. It depends on the children's will to participate. As Hart explains "It is not necessary that children always operate at the highest possible rungs of the ladder of participation. An important principle to remember is choice" (Hart R. , Children's participation: The theory and practice of involving young citizens in community development and environmental care, 1997, p. 42). Thus, a flexible or adoptive participation model offers the opportunity to join in any step and support their full involvement at that particular platform. Second, since the age and gender of children transmit different participatory skills, they might want to participate with the method or the topic they think they can contribute. Third, the context where the model is applied may need revisions, thus children need to adopt their opinions accordingly. And fourth, the experience that children show within a school building may vary, as may vary their opinion about the school spaces. Evaluation of the space is directly related to the experience children have within that space. That means that a flexible model could evaluate and provide data, in use to later coming co-decisions about the proper functioning of school spaces.

This models so, identified the elements that characterize the children participation in the workshop sessions that later built determinant issues for analysing results. These elements play a critical role in the research for finding out what each session offers so that children could bring out their best.

5.4 Children Selection

So far, discussions have focused on the children and their way of participation by searching and evaluating results; this section aims to discuss the experience that the researcher perceived by mediating different participation in different rungs of the ladder. Adam Fletcher (Karsten, 2012), who brings an adoption of Hart's (1992) ladder as "Ladder of Volunteer Participation" is a ground where the volunteer involvement of this research can be argued. Although in this research most of the children are in a way assigned to participate, individuals were not forced or obliged to be part of the processes. Rungs of non-participation levels indicated in the ladder, where volunteers are manipulated, used as decoration or tokenized, are not within the themes of the research or of the researcher. However, a flagrant case of volunteers'

tokenization is registered. Workshop 3 (Table 1), which lasted one week and which in fact can be located among 6-7-8 rungs in the ladder of Fletcher (Karsten, 2012), was open to all volunteers. It is initiated by the researcher (rung 6) but the method to be part of the research is initiated by the children themselves with any action they want to take (rung7) and later they share their result and decision with the researcher (rung 8).

Despite this structure, one of the teaching staff made the researcher experience "non-participation". 99 volunteers who had expressed the willingness to bring new ideas about the gymnasium as the most preferred space in their school environments, together with a list of everyday, hourly noted activates seems to have been manipulated. Children were dictated by the teacher what to draw and what kind of activities to write. Outcomes of the result demonstrate the feeling of being in a sports school. Indeed, it is not a sport school. Drawings are full of gym equipment that probably most of the kids do not recognize at all, and hourly activities are all about sports and training from the morning till the evening. Sadly enough, from independent decision-takers, which was the objective of the task, children ended up lacking autonomy and providing very low or no level of engagement at all.

Thus, in the section of including children as volunteers, the children autonomy is to be considered and adults should be asked about be careful in case they advice them (the children). As in the case explained, though the teacher is thought to be an expert in knowledge about children behaviours and skills, s/he should have been forewarned about the research goals and against influencing the children's contribution. Children should be empowered to participate (Treseder, 1999).

The results show that this kind of participation, which belong to top levels of the ladder, has the highest number of participants. Children showed concern they already have about their own building. They know beforehand about the topic of participation. The methods of participating were very different in variation. Meanwhile, the same performance was not noticed in 3.1 labelled workshop. Children here are assigned by a group of teachers. Though assigned, research made a consensus with them to enter or leave the exercises at will, which marks their volunteerism in being partners.

In this group the topic was told to the children ahead and they were given, as in workshop 3, a week time to bring their proposals. It is observed that despite their excitement to participate, working at home was thought as time-wasting or uncompetitive. Another reason might be that the children of workshop 3.1 did not make participation a concern. They have perceived it as a duty to be accomplished at the school time.

In this research there are other session in which children are asked to collaborate without knowing anything before about the topic of participation. This set of exercises provides spontaneous solutions, information and problems. Children accept to be partners, which in both sets of workshops, are dependent on some factors.

5.5 Participants' Characteristics

There is a whole system that affects participation. Participants with their background, their skills and capacities are other indicators of success. A person's way of thinking, evaluating, expressing emotions, having different skills, and so on, is equally subjective and basement for successful participation. Society is built of individuals, the more variety of them the more richness to the research. Literature tells the need not to exclude children of any capacity from the participation process. So did the research. It included children of different backgrounds, different genders, different ages, different nationalities and even disabled children.

At children with different background who come from different families, different classes of society, the research observed the same will to participate. The spaces they propose show changes which could be from the influence that have shaped the children themselves. For instance, the same age (11 years old) kids that participated in workshop 2 demonstrated dissimilarities in what they drew about the ideal school. While a child that lacks nothing at home draws a school called "Winx Club" from a cartoon movie, a girl from Egyptian community called the ideal school " friendship". This example presented here illustrates the individual's reflection of their needs. It is to be appreciated that children start their proposals on a critical judgment of what they have and have not.

With children of different nationalities, who have different cultural backgrounds, what they communicate through participation is an indicator of richness in results.

Buildings they propose are pretty similar to dominant architectural features of the countries they come from.

Individuals also have different skills and a culture in participation. Skills are expressed more in different ways of participation. In workshop1, for example, children drew the learning spaces(classroom) of the subject they prefer most at school. This means that they propose in details, the colors, shape, smell, sound furniture and feelings they prefer experiencing in that specific space. Workshop 3 is another exercise that is based on the children skills. They participate with whatever they think they are good at and can express their thought better. The examples in the figure 5.9 show how a 12-year-old girl participates with a drawing and how a whole class together participates with a poster.

Figure 5.9 : Examples of participating as an individual (on the left) and as a group (on the right).

On the other hand, the culture of participation is gained through the second set of workshops. By the end of the exercises, children know more about participation, they know more about evaluation and they know more about school spaces. In the end of the workshops children know how to observe a school building and how to differentiate them from one another by discovering such new visions about school buildings.

5.6 Time and Venue

Time element is an important factor that is tightly connected to the place factor. Managing time of the task within a class session in cases when the workshop is conducted in the classroom has brought forward mobilization of children to an

effective use of time. By the end the real volunteers of the workshops are understood. They continue to deal with the task counter to break time.

Experiences experimentally, time management and appropriate time selection for applying the tasks lead to fruitful children participation. Working in the class time or lecture time seems to be more attractive for the children. There are observed two reasons for that; children disrupt classes (for moving away from monotony) and not occupying noon time which is their entertainment time. This situation is valid in all the cases when all the classmates are part of the workshop. If not, in children that participate out of the classroom is observed that they sometimes leave the workshops when an important topic is issued in the subjects in school.

Nevertheless, what is discussed about time management and time selection is significant to be considered even for the venue of the workshops. As mentioned earlier it has a close relationship with the time of the exercise. Sending them out of the school environment makes them not think about time and subjects at school and concentrate on the participation. Indeed, workshop 1 overlapped with participation of all the class members, so they did not express any concern about the subject.

Classroom as a venue of participation ensures children participation in the school time and of all the children. Other spaces within the school building stimulate the interest of the children. They are volunteers and participate fully. In these cases, it is important to check timetables and curricula in order to have a full participation and children not to leave for a specific subject.

In workshop number 5, the walkthrough exercise was challenging for the children and they did not show concern for a subject or time. None of them left to participate in a lecture, and they accepted to continue to participate despite the end of the school time.

5.7 Strengths and Difficulties of Participatory Workshops

The main advantage of the whole study is the contribution it has. Workshops contribute to children, children contribute to research and the research contributes to testing ideas and developing new projects. On the other side, the workshops had their own difficulties, which have to do with age, gender, time, space or method of participation.

5.7.1 Workshops contribution to children

Children are invited to share their opinions with the researchers. Their contribution, though personal, brings diversity of experiences; such experiences that could never be described by designers alone; a contribution that could offer an incredible bouquet of creativity. It is possible to come up with an exhibition of drawings and a competition of essays or to find out the best cicerone to guide through the school building.

For children, workshops have:

Relaxing contribution

Self-reliance contribution

Educational contribution

All workshops are observed to be like a breath to daily "monotonous routine" on one of the children words. Moving out of the school building and participating in the classroom within a class session or any other space within the school building is a different activity for children and they evaluate it as "fun". The workshops could not bring the same results if applied after the class time table hours. In workshop nr 3, which is the only example of participating from home, is described as relaxing due to the fact that it occupies skill expressing tools. Kids participate in the category they feel themselves strong and have considered the participation as a race.

In general, children feel spoiled of being selected to contribute.

The very young participants (10 years old) experienced moving out of their building (W1), which makes them feel exited and not bored. Indeed, excitement is observed in all groups and all ages. Throughout the workshops they expressed verbally how happy they are to be part of a participating group. Yong children and girls seem to be more expressive and express the feelings, meanwhile, boys of the older ages react upon the theme.

The second set of the workshops (W1.1, W3.1, W4.1, W5) with whom the researcher met constantly tell how impatient they are for the following workshops.

Workshops increased children's self-reliance, a phenomenon observed especially at the youngest group. They think the workshop brings them in the center of attention because the majority of 10-11-year-old children think "no one cares about their

opinion". Older ages disbelieve in the applicability of their proposal, despite the good will to participate. Sometimes they excused by saying "I am not good at drawing".

Among all the workshops the last workshop (walk-through experiment) registered the peak point on self-confidence. There might be two reasons for that. Firstly, this workshop is applied with the sample group of 25 children who experiment by experiment have started believing in themselves and the seriousness of the research, so they feel assertive in the proposals they have done about their own school building. Another reason might be the nature of the workshops, which makes children more active and seems to be more concrete.

The third contribution the research reveals to make to children is educational. Children, through the help of the topics and methods of the workshop, start thinking differently. They start to see the surroundings with a different eye. They develop communication skills. They show enhancement in being more courageous to speak out their thoughts without caring about what others say. Oldest participants aged 14-15 as the nearest adults, have profited a lot in this respect. Workshops teach them about "democracy and tolerance" through interaction with each other and with the adults. In table 5.4 it is illustrated what kind of reflection the children had that from which workshop.

Table 5.4 : What children learned at each workshop.

learned	w1	w1.1	w2	w3	w3.1	w4	w4.1	w5
design	√	√	√	√	√	√	√	√
spatial thinking	√	√	√	√	√	√	√	√
group work	√	√	-	√	√	-	-	√
evaluation	-	-	-	-	-	√	√	√
empathy	-	-	-	-	-	√	√	√
observing	√	√	√	√	√	√	√	√
time management	√	√	√	-	-	-	-	-
decision taking	√	√	√	√	√	√	√	√
self confidence	√	√	√	√	√	√	√	√

Through the study the children have learned how to manage time and how to take decisions firstly on the methods of participation and then on the proposals they do. Workshops increase the architectural knowledge and children have a clearer understanding of space and architectural features and enhance the ability to relate

them to their own building They contribute to reading architectural space and to reading architectural drawings. It gives a better understanding of the benefits that the children had during the process. The table is developed based on content analysis and the researchers' observations. Moreover, it goes in line with the aim and the objective of each workshop or exercise.

In general, the strength of the workshops is that by the end of each exercise children have learned to have more respect for themselves, their friends and their own school building.

5.7.2 Children contribution to research

When it comes to children contribution to the research, there are noted a number of benefits. First of all, the great number of participants, the multi-aged and multi-genders together with the great variety of children backgrounds makes possible different opinions to come together. Research profits from production of exiting new ideas and collection of them for building such useful feedback for school buildings and its compounding spaces. Through the workshops and exercises it is possible to identify important school building themes that may be part of future school planning. For instance, W1 and W1.1 with the "I wish my school had…" methods bring exited spaces such as a center for film production. W2 on the other side, where children had to propose a name for their school building and write down what kind of animal that would prefer to have in the school environment, is observed to be a good method in terms of school themes. Cartoon schools, desert schools, music schools, sportive schools and farm schools are among themes proposed by children.

5.7.3 Research contribution

The other point of contribution is how this whole research contributes. All the workshops, all the exercises done and all the methods implemented, though known and tested, help to learn more about children working circumstances, their likes and dislikes, places they prefer to study, spend time and socialize, time of participation for maximum results, indication about the researcher's intervention and ways to deal with different ages and different groups. Furthermore, the research finds out useful ways to connect with children for involving them in spatial decision. For example, a POE is a good method to make children think spatially and to teach them

architectural features. A walk-through and working on architectural drawings enhances child knowledge about architectural spaces.

In this empirical research is noted that collaboration with children contributes to creating a new map of participation.

5.7.4 Faced difficulties

As already explained, the methods used in all the workshops are used to support children participation and self confidence. But, in each and every workshop there were faced some difficulties. Sanoff (2001) mentions that the success for the participatory process stands in the process management. Though he thinks that there are a number of difficulties, the key is "the management". So, starting with the process problems and then with the interpretation of the products, difficulties are as follows.

In the beginning, in each subject school there was always the problem of trying to create contacts with the school directors in order to have access in the school building and creating the opportunity to deal with the children. After the third subject the job was easier but the problem lay in finding the proper time in the school schedule without effecting the lectures. All the rest of the workshops were applied to the same school building which in fact in terms of contacts offered facilities.

During the process the difficulties lay in various aspects. In the first workshop (W1) the difficulty was in applying the exercises with international children who had problems to come together in a group work. Language, culture and their family background is what influences the problem of collaboration in a team. The second workshop (W2) encountered the problem of convincing the older groups to participate. This group of participants lacked self-confidence. The other workshops, on the other side, encountered managing problems. Problems in managing the time for applying the workshops and problems in managing different age groups.

Other difficulties arose with children speaking their thoughts loudly, consequences of which are seen in the opinion influence to other children (W 4) or the teachers influence such as the case of the gymnastic trainer (W3) that told all the participants what to write in the open ended forms. Evaluation of different schools through photographs took a huge time due to the fact that children grasping the photos took time for different ages. The latest workshop's only difficulty was reading

architectural drawings by the youngest participants. It was a little time consuming and the researcher had to interfere several times in the process to make more clear to the participants what kind of space they were discussing for. On this workshop the difficulty is with the management of the youngest group. They have concentration problems and difficulties in reading architectural drawings.

Other set of difficulties is about understanding and interpreting the products that come out of the different participating processes. Drawing, for example, has the problem of interpreting. The case when children accompanied the drawings with the comments resulted more productive. Different ages mean different things in the drawings. Essays, though in a high percentage are positive, are not good for children with literacy problems. Difficulty may be considered the utopic wishes they express through them.

Results of visual questionnaires sometimes were contradictory. It was due to the adjectives used(W4); children had difficulties in understanding them, mistrust in the research to really be asking their opinion and the time we had at our disposal. In the repeated workshop, adjectives were reconsidered and the children had more time to ask the meaning of each adjective in case they did not understand any. Another problem in this workshop was bringing together at the same questionnaire the children's own school building with the other successful buildings. Children didn't want their school to be less evaluated compared to the others, thus the results of their evaluation are comparable to the other buildings (W4_visual questionnaire).

In total, all the case studies, and each and only experiment highlighted a series of notions to be considered in the complexity of participatory design and participatory methods.

5.8 POE as a Model for Future Participatory Perspectives.

POE is known as mostly a quantitative data production of the building after being occupied for a while, but at the same time it gives qualitative information about the ways of using a specific space. On the other side, participatory process is documented to be part of the pre-design process of mostly qualitative products. The multi-methods of participation, considering the POE as a participatory method as well, is to reveal different levels of information. POE as a form of questionnaire does

firstly introduce children with the spatial characteristics and increase space perception in where the focus in POE is. On the other side, obviously, it gives enough data about building performance. The walk-through method that followed the written evaluation in these set of exercises, matches up with both participation and evaluation. There children demonstrate the complexity of space place perception. Subconsciously, children experience space perception, space evaluation and space design participation. In each and only workshop, though the main theme was not evaluation, children participated through it. They evaluate, design and propose inspired by the main objective of POE which is to address problems of build environment after they have been occupied (Zagreus, Huizenga, Arenes, & Lehrer, 2004).

The exercises of this research reveal that every issue raised by children not only in the Post Occupancy Evaluation exercises but also at other participatory workshops is based on the experience they show in theory own school environment. The table 5.5 illustrates what children propose and what they really have on their schools.

Although the methods are diverse in typology, and are not categorized among POE methods in literature, the structure of the survey identified the applicability to any group of children of any educational building. The POE methods are listed and focused on obtaining data about already constructed buildings; meanwhile, this study contributes to the idea that not only POE methodologies are evaluative. All the methods (as it is illustrated in the table 5.5) reveal back indications on children currently in use buildings. The focus group ask for what facilities lack on their own school buildings They add value to POE. From the products is perceivable that children have already developed a mechanism of evaluation. 90% of the participants' works, of each focus groups, included in their proposal of the spaces, facilities and spatial features traces from what they think is missing in their own school building. Introducing them with other successful educational buildings from around the world, as is done in W4(visual questionnaire), adds up to developing a more complete image of the school buildings. They consider the new knowledge as a tool to evaluate, analyse and interpret ideas objectively.

Table 5.5 : Comparison between the present school and what children ask for in the participatory process.

Workshop nr	Methods used	Their own building characteristics	Raised issues for the ideal school buildings
W1		Modernist 4 story building rectangular classrooms one color painted interiors no gym very little open space controlled	Dynamic shape building Classrooms according to subject Open gym Colorful spaces Furniture in strange shapes To much open and green space
W1.1	Brainstorming / post it Drawing Wish poem Model making	New building 3 story building and a gymnasium small courtyard large halls plenty of daylight no furniture in the laboratories no green space no playground no colors in the building no canteen	More dynamic building Open air gymnasium Large courtyards Time to use large halls Better artificial lighting for afternoon sessions More trees and flowers A playground for different age groups Colorful interior and exterior Furniture spaces A canteen or fastfood
W2	Drawing the ideal school If I was a mayor activity	School with typical socialist plan Reconstructed building Overcrowded Strict rules Small classes No outdoor area No green spaces	Open plan school. Distributed buildings Less kids in a classroom More free time Larger spaces Plenty of playgrounds Green areas Farm with animals
W3 W3.1	Leave free the mode of participation: a model, drawing, essay, poem, poster…	3 story building and a gymnasium small courtyard large halls plenty of daylight no furniture in the laboratories no green space no playground no colors in the building no canteen	Not only a building as school but a couple Large courtyards Furniture laboratories Green-space playgrounds colorful and spacy interiors cafeteria, canteen, fast-food, cultural center
W 4 W4.1	Photo questionnaire POE questionnaire		
W5	Walk through POE/Video recording/ Discussions Draw solutions on map		

6. CONCLUSION, IMPLICATIONS AND FUTURE DIRECTIONS

The fact that children in Albania are not asked about their opinions on the space they use and especially to the school buildings, is tristful. The generation of the moment is dramatic in several aspects, but particularly for the fact that most children are still using school buildings that were designed in the communist period. Some of them have been subject to renovations, additions, some others are new constructions. However, all these spaces are designed and managed by adults. In the world experience based on the human rights, designers, politicians, stakeholders and researchers have been working and experimenting since 1960s to find the ways of taking in consideration children's thoughts as co-decision makers. The need for creation of a children participation culture in Albania is a social responsibility. One of the tasks of the government agenda about Albania as a candidate state to the European Union, is to invest in the educational system. That means that central and local governments are planning and treating school buildings as an important infrastructure for a better educational level. Thus, generating a language for children and adults to collaborate for better school buildings in the future, is the initial point of this research.

The main aim of the research is to re-conceptualize "child's participation in design" and "design of educational buildings" as a form of action research in architecture, by observing the relation between the children and the built environment and by involving them in proposing spaces of their own. All is achieved by also including children in the evaluation of school buildings. Children have a strong attachment to their environment. Such a feeling influences they way they think about the built environments. Consequently, their experience is a key to be included in designing of future school models. Thus, this study proposes a communication language of participation only for children and by children in order to build a layer for architectural designing.

The thesis commenced with the understanding of the Albanian school situation, which has overcome several stages. With the aim of grasping how the school system

is reflected in physical environment, the research focused on three main periods of Albanian history; pre-socialist, socialist and post-socialist.

Pre-socialist period is characterized by adapted school buildings. Better stated, the buildings that were not designed as school buildings such as churches, houses etc, were adapted as such. After the year 1933 there are few cases of new buildings, but due to economic conditions the space-curricula requirements are not present in the buildings. The level of education was low so mostly teachers had to move long distances; thus, some schools are designed with small sleeping units in service to these teachers.

Meanwhile the socialist period is investigated into five cycles:

The first cycle (early WWII-1950)- Primary school education becomes mandatory. School buildings started being designed by national architects and the buildings they designed were standardized educational buildings.

The second cycle (1950-1955)-Mandatory schooling increased from five to seven years, which indicates a need for new spaces for the increased number of children and subjects. An increased interest in school outdoor designs can also be noticed

*The third cycle (*1956-1965)- A change in curricula which is present in the new building constructions. There are political ideology courses. Module construction concept to add spaces in case needed.

The fourth cycle (1965-1980)- Mandatory school changed from seven to eight years. During these years a mix of professional and basic education with a focus more on work-physical and military education is dominant.

The fifth cycle(1981-1991): Construction of standardized school buildings continued.

During the post-socialist period, Albania experienced huge dynamics in all fields of life. Educational system and the physical environment didn't escape the transitional situations. Most of the school buildings were subject to vandalism. Emergence of private schools was a novelty for Albanians. After the year 1997 the educational system changed and the need for reconstructing buildings and new school buildings increased. The year 2015 marked another reform, according to which mandatory education expanded from eight to nine years of basic education. The standardized schemas about the school buildings disappeared and national architecture

competitions took their place. The concepts of community school buildings are being tested and constructed. The realizations are mostly functional, meaning the designers produced spaces they predict could be used by community. There are not any new buildings conceptualized like this, but most existing school buildings are re-conceptualized as community schools. This community school partnership is a new step towards including users in design. Nevertheless, there is no established knowledge of understanding participation as it includes the children in their own school building design in Albania. Where knowledge does exist about children participation, it is from the perspective of human rights and inclusive design. There is no registered data about including children in design phases of school buildings, forgetting so that their experience about the built environment and the interaction they have with the school buildings areas essential as knowing to design.

Hence, the impetus for this research was the establishment of a culture of participation by taking into account children, not only as a powerful force of society but also as the main users and experience holders in the way school buildings are used.

“Participatory design” and “Post Occupancy Evaluation” have been the focal points of the thesis as means of interlocking these two concepts as representatives of human rights and users’ experience, to come up with a language of participation.

6.1 Participatory Design and POE Theory and Method Implications.

Studying participation and POE theories in the frequently changing learning environments has produced a different dimension to the methodology of children participation. The deep search on participatory design reveals the ways in which children involved, why children participation is important for children and adults and how children’s cognitive development and space understanding is related to the methods of participation. Furthermore, it is revealed that the theories and the research methods that are based on the respective theory are all unified in understanding children participation and productions from the participatory and POE methods. To understand the essence of children participation in design it is firstly needed to focus on the child age and their development according to age. In this respect, the researcher explored literature related to the involvement of children in the design and built environment assessment and established Piaget and Vygotsky

theoretical frameworks. The latter is for understanding child development of age 10-14 years to position the research in the children participatory process and school assessment processes. The selected age for this research corresponds to the middle school in Albanian system, which coincides with the concrete and formal operational stages of Piaget.

The research in the field identified a need for established guidance for designers and respect for children and want to organize them in the Participatory and POE processes as useful tools for child friendly spaces. School buildings as children spaces that affect at most children's life, are generally under strong adult control and authority. The levels of participation in the wide range of approaches that are summarized from the literature, give a better understanding of the hierarchical child participation. Starting with Arnstein and Hart, all the participatory approaches aim to arrive at a genuine participation of children as child-adult co-partner in all the steps of a new construction. This research investigated closely the characteristics of each level of participation to provide a useful and effective participation of children with the help of a number of case studies. The understanding of non-participation sections of the ladders and the degrees of participation assist in the decision about the proper method and tool for data gathering. On the other hand, Shier's models have other values. Shier demonstrates the links among the levels and for having a clear outline of the steps to be taken for an effective pupils' participation and school policies. As already stated, the main idea is to involve children in the higher step of the ladder but it is impossible without the adults' support. Especially when it has to do with the researchers about children and with children, Freinstein, Karkara and Laws's wheel of children's participation in research was a guide for encouraging children, sharing with them the needed information or training the pupils to have the needed skills. Moreover, it is used in the research of this thesis for shaping the participatory behaviour.

Francis's and Lorenzo's realms of participation are related to the goals and child's degrees of participatory process. Accordingly, it directed toward the most authentic level that of "proactive realm". For better school spaces children and adults need to cooperate.

It is visible that there are a number of theories outlined in the review that draw the difficulties children have for an effective participation. Besides the complexities, the

researchers' effort is revealed and exposed to be about autonomous and respectable children. Their participation contributes not only to the shape of the environment but also to the shape of the society. When the collaboration with children is applied, common outcomes are gained. Firstly, designers or decision-takers can take better and easier decisions and, therefore, they learn to respect kids. Sent away from tokenism, children become skilful in different aspects. They obtain self-esteem by increasing the awareness of their rights for their well-being and better life conditions. The question how children are encouraged to participate is crucial. What is the impact of participation? How to judge on successful cases and learn from them is realized by gauging the process through evaluation. Among all the strategies of the participation there is no fixed structure to be taken into account. Many arguments such as conceptual and empirical arguments can be used to expand participation as "efficiency" and "equality and empowerment" (Cleaver, 2001). Efficiency is about participation to produce valuable outcomes and empowerment to raise kids to be capable of changing their own lives. Thus, children's participation is advocated. This research tries to go further and argument that why POE as an approach and strategy, if mixed to participation, would unquestionably empower mutual benefits of participation. Children participation can be attached to different strategies and realized in a number of methods. For example, it can be understood as part of a new project for the construction of new school buildings from the planning to the implementation process. It can be understood as part of renovating an existing school building where their experiences, their assessment and evaluations are a push for producing not only a fruitful engagement but also a child friendly environment. It can be understood as a mix of both new constructions and renovations, where evaluating and planning go together. There is a common misunderstanding that POE as a theory and practice has to do with finished buildings, but some scholars have argued the opposite. The POE can be conducted at any time of the life of a building. For this reason, it is categorized as indicative, investigative and diagnostic POE (Palm, 2007). POE gives information about the present and about the future. As participation, this approach is a co-operational strategy between users and adults to offer solutions to school management, government and designers.

Broad literature exists on methods of including children in design. The methods are shared among participation and POE, unless the view that POE in itself is a method

for participation is considered. It is Sanoff (2000) who expands in details all the characteristics of the methods generally classifying them as “workshops” and “design charette”. Other methods and tools are part of participatory and POE researches such as drawing, models, essays, poems, walk-throughs, storytelling, games, observations and so on. These are visual and verbal methods of participations in a categorization, but they are evaluative and creative categories of the methods that are present in the literature as well. Conceptual reasons are settled on the models of participation and the child cognitive development that support the ideas of which method to be used where.

Participation and evaluation methods which offer qualitative and quantitative data are implications of this research. Quantitative data are generally questionnaire-based and in this research are obtained from POE questionnaires; qualitative data are more child oriented. Qualitative data in this study are brainstorming activities, drawings, essay writing, model making, “I wish my” poem, form-filling activities, visual questionnaires, walk-though evaluation and mapping the solutions. Nevertheless, this research is based on Clark’s (2004) suggestions of multi-method approach; a mixture of qualitative and quantitative, visual and verbal, creative and evaluative. It is the willingness to ensure a diversity of children participation that pushed the researcher to involve children in different levels of participation with the help of different methods. All the effort is made to raise a possible cooperation structure. From literature review, different methods and techniques are flexible and can be applied based on the researcher’s goals. This research, like every other research, adapted and applied the techniques based on its aim and goals. Because the techniques define some activities, they are used to empirically prove and advocate reflections and analysis of the researcher in the overall process; for example, the very first exercise, which started with the pine up session of pushing children to think about the purposes of the school, implied making children be active and explore spaces other than learning rooms.

The research uses methods which go parallel to the levels of participation all to empirically extend the research toward the genuine participation and evaluation. Accordingly, the five cases of the research have used techniques to prove that enabling children to express their views and share the information in uncovering their everyday hidden thematic and detecting priorities is a process that does not lie

only in participation but it rests on children's evaluations and their capability to monitor and evaluate the physical environment.

6.2 A Final Discussion on the Findings

In the 4th and 5th chapters the complexity of the participation in design is argued based on the two sets of workshops with their own exercises. Before discussing the summary of the findings and results of each of the exercises with their own characteristics, it is worth clarifying to what extent the children were involved in the participatory exercises about the school buildings. In the cases, children were involved in different stages, starting from the proposal of the concept of design, i.e. proposing a name to the building such as ballet school or cartoon-land school, to suggesting the school building program., With the help of different techniques such as drawing, writing or evaluating, they inspire the researcher about the different functions the school building can shelter. Additionally, children involvement is present in the interior design of the spaces, for example the classroom design where children proposed furniture, curtains and other materials together with their favourite colors. Children involvement didn't miss in the outdoor proposals, especially in reconsidering their own building after the POE process. To be more precise, POE questionnaires and the walk-through tour were good examples to prove the children involvement in consultations. The following exercise was an indicator of children's reflections of the learned skills and the reflection of their space experience in transferring them to real spaces on paper. Thus, involvement was at the different levels of participation to achieve different levels of influence. The researcher uses specific strategies for each of the exercises; and the problems and difficulties of the first set were tried to be recovered and recuperated in the second exercise set. However, the involvement should lead to developing designs that are child oriented, but which promote satisfactory educational system occurrence. During the children engagement process, some issues were identified. The researcher used specific strategies for each of the exercises. The problem and difficulties encountered in the first set were tried to be recovered and recuperated in the second set of exercises.

There was a lack of consulting time with children because the experiments' time was limited to the school time. It is not possible to collect the children out of the school time. In the first set teachers allowed only a specific time due to their own school

program, while in the second set the children were collected from different classes, which permit the class and the workshops go equal in different venues. In the first set of workshops there was sensed the problem of motivation due to the nature of the workshops, being applied once to those children, while the second set had problems with sustainability. In the first set, older age children did not think their ideas are valuable, though they were willing to participate. Believing in the research and the participation keeps the process and the communication alive.

When it comes to the benefits, they are similar to those revealed from the literature review. Besides the children and the researcher, the school staff also benefit. Firstly, children felt they are equal to adults. Their right to be part of even one research gave them power to think and have the perception of having their right to talk and to decide. Any feedback they provide based on their space experience and understanding, gives clue to space use and amelioration. In the W1 and W1.1 the evidence indicates that to enhance the school space quality children designed new furniture for the classrooms and for the outdoor environments. The schemes exhibit need for better-lit interiors and healthier outdoors (green and playful spaces). They drew and wrote about sportive and art spaces as areas that are missing in their buildings and their presence would make their life happier. Children are not selfish; in their representations they give place to the needs of other ages that use the school building environments too. Such a sensitiveness from children is beneficial to adults for teaching them consideration of the ranks of the society in decision-making.

Children search for better and qualitative school environments is expressed even by adding and removing some functions. For instance, through the walk-through session children remove the canopy that links the main building with the gymnasium and add another function to it such as the cafeteria.

Another use of the research is to see the built environment in the child's eyes. They evaluate the spaces and give feedback about them. The way how they perceive a dreamed classroom or the way they reconfigure their classroom by turning it, for example to a homelike environment, is feedback to be considered.

Further to these benefits, children had something from all sessions to learn from; for example, from visual and POE questionnaires they enriched their vocabulary. At the

end of the experiments, especially the second set, children gained the skills of looking at their surrounding critically.

Reading the school space critically starts with the very first question of the first (W.1) exercise. In the question on the purpose of the school buildings, the main highlighted answer is that school is a learning and teaching environment. When school buildings offer possibilities that serve learning, children feel more attached to schools and express more interest in the subjects; for example, children of W1 have an interest in all subjects. Their indoor learning environments functionally fulfil the teaching requirements. Their interest is visible in the drawings and the writings, which reveal their attraction to all the spaces. Outdoor learning environments on the other hand, are concepts and spaces not known in the subject where the workshops are implemented. Thus, in W1 children's appreciation is for indoor and not for outdoor. However, children are distinguished for improvement of the spaces missing in the buildings they are using. They report for extension of new spaces or improvement of the existing ones. Individual corners, group discussion and socialisation spaces, well-equipped interiors and green and sportive outdoors are requirements that children in all workshops emphasize. Children gave special focus to corners and individual spaces. They feel the lack of such spaces in their buildings, appreciate their existence in the visual questionnaire from the school in the world and they ask for some in case their school is reorganized. The classrooms layout is generally rectangular in shape which makes them automatically with four corners for about 25-30 pupils a classroom has. Despite this, the corners are not used as individual spaces but as part of lecture time seating arrangement. The only individual space reveals to be their individual desk and seat, which are also shared with two or three classmates. Individual desks and angled-star shaped desks are evidence of the need for privacy. Children expressed such a necessity in the conversations and the dialogues they performed with the researcher.

Children listed other purposes of schooling as meeting friends and having fun. It is the school life that is composed as such; children also need activities without letting behind education, socialisation, nutrition and rest, which are other important elements of children's school life. Accordingly, these spaces have their own characteristics and children desire spread in the requirement of various activity areas.

There are apparent results of the exercises that accommodate various designing and re-designing instructional settings for being considered in the learning environments. Even though the workshops and exercises are mostly focused on the spatial organization of the learning environments, it doesn't mean that the educational system and the school program is left aside. Working on the educational buildings and learning spaces although is a fruitful research is associated with its own limitations. Disassociating educational plan from building plans is no more a practical and advisable way of dealing with the school buildings (Sanoff, 1994). There is a mutual influence between curricula and the learning spaces which establishes the debate about learning spaces quality. Within this debate the children opinion constitutes a vital role. Through their participation different images of school buildings are obtained.

Accordingly, the findings of the workshops, discussed in the previous sections, may be categorized into outcomes that contribute in the design of the new school building or in the existing school buildings that are in need of interventions.

6.2.1 Extracted images of new school building designs

The study illustrates that the children's opinion on the indoor and outdoor school spaces have separate, but also share some attributes to be considered in design. The study analysis the workshops and based on that analysis provides a list of concepts and a list of tools and methods from which designers can benefit.

Concepts

The whole research process, besides the program and physical appearance of the school buildings, which are expressed in details in the chapter of the case studies, attempts to uncover child perceptions for verification of concepts of learning environments' design.

In this line, *flexibility* has a dominant role. It is a concept that is felt in all the exercises, despite the method or tool used. Additionally, it is felt in different scales, meaning furniture, classroom and building scale. Pupils prefer movable desks and seats. They don't like monotony; thus, movable furniture offers reorganization of the classroom layout. Pupils propose direct access to the nature with the help of doors or moving ceilings. The colour of the classroom may change according to the subject or the weather conditions. All these are evidence of the desired flexibility at the

classroom level. At the building level, flexibility is felt, especially from drawings. A school like a bus, a school floating in the water or a school on the moon are manifestations of this concept.

The research indicates that organization at the ground level and the *horizontality* of the school building fulfils the ideas of children to access the outside and have connection with the nature. Children expressed displeasure at not being allowed to use other floors in the building for security reasons. In a horizontal layout this problem disappears. It means wider spaces, spaces for all and a socialisation among the ages. Furthermore, it gives solution to an inclusive design, a concept not discounted by children. Although horizontality is seen as a solution for accessibility and safe movement, the children's desire to use the outdoor is not limited by the floors. In and out connection is obtained by movable stairs, ladders, sliders and ramps. In the drawings, such elements give clues to the movies they have borrowed them from.

The concept of horizontality develops further to the concept of *Campus-like* physical environment layout. The number of pupils who express the need for neighbourhood-like school environments is not small. Its evidence starts from the very first workshops with the result of the wish poem. A 10-year-old boy wishes his school "had a city". The drawings and essays in many cases support the campus-like school buildings' organizations. This layout desire is verbally spoken in the walk-through process and graphically drawn in drawings with the plurality of spaces that compose the outdoor and indoor environment of the schools. This concept opens up to the inside-outside connections, which in the children research is manifested from individual gardens for each classroom to the transparency of the spaces.

Transparency is explained in a number of special characteristics depicted from the children's works; for example, pupils drew and explained the library as a transparent, glassy environment to ensure and communicate the life every kid should have in the school: feeling the spatial impression. Their school building is evaluated by children as a structure that resembles prisons. They clearly state that an ideal school should encourage the sense of community. What else than transparency would help to achieve it? Transparency would let children stare at nature, which is maybe the most predominant finding of this research. "if my school was located in the middle of a forest, I would come here at a run" says a 13-year-old boy.

Accessibility seems to be another concept that is desired from almost all children involved in the workshops. From their nature, children are curious and always want to reach, explore and re-explore spaces. Thus, indoor-outdoor accessibility is a concept that together with the concept of *privacy* are emphasized by children despite the method used.

Ecological concept is related to the sensitiveness kids have toward the environment. Accordingly, children rank the connection the nature should have with the school buildings among the top preferences. Knowing that children are personalities in development and that environment is influenced by them, (Baacke, cited by Spatcheck and Osterman, 2009) the ecological concept gains importance. Furthermore, the children themselves are emphasizing this concept significance. The positive and variety of involvement, especially when the participation was opened shows their interest in dealing with their learning environment

6.2.2 Extracted images in cases of re-designing existing school buildings

the review and the analysis of the results indicate that the existing school buildings are sharing similar concepts. Flexibility, transparency, ecology, accessibility and privacy are among the concepts that seems to offer opportunity to the existing school buildings. Children expressed their preferences in the post occupancy evaluation questionnaires, in the visual questionnaires and the walk through workshops, where they proposed concepts for their own school building.

The need for concepts in redesigning the existing school buildings is expressed by children in the interest of using the school spaces beyond the school program time. For example, children are trying to give names to their schools, to increase the number of the activities that might take place in the school spaces. They propose to take care after plants and animals. They propose school system without subjects or school buildings that are similar to that of the fairy tales. All these proposals are indicators of the needs to base the redesigning of their buildings to a certain concept.

6.2.3 Tools and Methods

The research employed different tools throughout the process. The results indicate that the methods being them creative or evaluative, firstly, give feedbacks on the

children own school buildings and latter they participate with their opinions for future school buildings.

Verification of their effectiveness would open a discussion on the effectiveness of the participatory process from the children's and the researcher's point of view. In order to push pupils to think and brainstorm, a direct question with a requisite in replying with more than one answer was effective for warming up and activating the children. It was successful in pushing children to give other than cliché responses.

Drawing was an effective medium especially suitable for younger kids and for children that are good at drawing. In this respect, W.3. was successful because children produced and participated in a preferred medium, which for them was fun. For older ages it resulted not to be a good medium unless they have talent in drawing. This age group showed more keenness on "I wish poem" and "if I was a mayor" activity. 3D model was a challenge method for this age. This is because these children correspond to "formal operational stage" of Piaget. This group of children is closely related to reaching a conclusion about the hypothetic situations that the researcher is asking through drawing the expressed disbelief in the possibility to come to a conclusion. They consider more written and spoken activities.

Poster representation was an effective tool for group and team works. Children (W.3) are more comfortable to come to a consensus when they have to decide on which image to locate in a poster.

Most of the participants involved in the essay writing, which was a voluntary participation, presented suggestions related to a variety of design aspects. The ones who were good at literature, besides the program about the spaces of the building and features with respective aesthetic description, included the intangible aspects in their pieces. They talked about music, senses and feelings they want to experience in the learning spaces. Not too many children preferred to participate with a poem, but the ones who did (the youngest participants), presented the excitement of the emotions the school buildings awaken in them or they want it to raise. Similar to essays, it was effective to touch the intangibles.

It was revealed that visual questionnaires are not age-related. However, it has an impact on child space perception and it enriches children's vocabulary. It was also effective on the impact it had in terms of enhancing children space perception and

understanding qualitative spaces. It was expected for this method to influence the POE questionnaire, but it did not. All presented schools were inspiring but they didn't encourage children in terms of being objective in their own school building evaluation. Such a situation was valid especially for the cases when the children participated once only.

The walk-through, as the concluding workshop of this series of workshops, had different stages. All of them had their own influence and the benefit for the children and for the research. The sequence of actions showed when and how to gain successful performance. It was operative to encourage children to work in groups. Dividing the groups according to age increased interaction on one hand, and granted the space perception and child's ability, on the other. Younger children pay more attention to details and the furniture, while older ages to the spaces that are missing and want to add. Letting children guide through the building, in a total freedom, made them believe in their role's essentialness to the research and increased their enthusiasm in participation. However, the younger group displayed difficulties in understanding the last stage of proposing, where they had to express the architectural drawings in words; their engagement, like the other groups' involvement, was communicative and substantial.

For the research and the methods used in the research to be communicative, there are other criteria that should be considered. The time and the venue of applying the exercises and workshops are among them. Children spend too much time studying and learning in the school environment. They are not willing to spend their free time or break time for being part of the research. Nevertheless, the age variable makes an important factor to come to such a conclusion. Younger ages are ready to sacrifice their free time and older ages are ready to miss the lecture time, unless they find one course important for their future. About the place of participation, it is revealed that children are free out of the classroom and not under the pressure of being controlled. Yet, the concentration is higher in the learning spaces when a time limit is presented to them. However, wherever the place of participation is decided, whenever the time to be engaged is defined, the judgements, assessment, proposals and the level of occupation in the participatory design processes is based on their reflection and their knowledge of and experience in the school buildings they use everyday.

6.3 Stating a Position for Albanian Schools

The Albanian government with the investment of Regional Development Fund intends to invest in the development or improvement of the school system and school spaces. Many pilot studies of different aspects of schooling are being tested stating here: inclusiveness in education, change in curricula, change in the educational system and changing the school into community centres. In terms of monetary expenses, it is a fact that the government does not allocate enough funds for the schooling, but the desire to improve the educational system has never been missing. Indeed, the school does not have to be expensive. Children's contribution through participation consolidates this statement because their feeling of ownership and being heard affects their well-being in the school. It is the children and pupils themselves who feel and create the best, as the main users and the real actors of the school. Their experience and support can latter be turned into new or renovated school buildings. New school buildings would have the opportunity to achieve the concepts mostly preferred from the children. Old buildings which are still in use may be renovated accordingly based on the POE and participation and with a throwback to the concepts their design was based on.

6.4 Future Directions

There are several lines of future research that spark through the research process. A potential area of study is how policy of school design can react to participatory design and how they are received by school and government officials. This could help the school and the designers to focus on the effectiveness of participation in an effective schooling.

Further research in this area could consider collaborative configuration. As explained in the chapter of the case studies, all of the collaborative configurations were research-child for providing information related to participation and POE effect in the designing or redesigning of school building. However, in future works, researchers could choose to focus on a parent-child or teacher-child collaborative configuration for encouraging children in school design. Children may be more relaxed with parents or with teachers. This would provide more specific information

about how to particularly approach the design. A further alternative study would be undertaking a comparative study among different suggested collaborative patterns.

There are also potential paths for this research which were not fully explored by the study. Children participating were of different backgrounds and of both genders. In further researches, gender differences in space experience and school design can be explored.

In future research, before being applied to children the exercises could be consulted with a team of children researchers. This may affect looking at the research methods from the children's point of view.

The current research has laid a background for those who wish to study children participation in the light of POE. It is an exiting starting point for researchers, architects, governors, teachers and whoever else interested in studying children participation and POE in multiple ways and in two methods, qualitative and quantitative.

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APPENDICES

APPENDIX A: Social Network Page of the Research
APPENDIX B: Examples of Standardized Designs of Socialist Period
APPENDIX C: Visual Questionnaire
APPENDIX D: POE Questionnaire
APPENDIX E: Workshops

APPENDIX A: Social Network Page of the Research

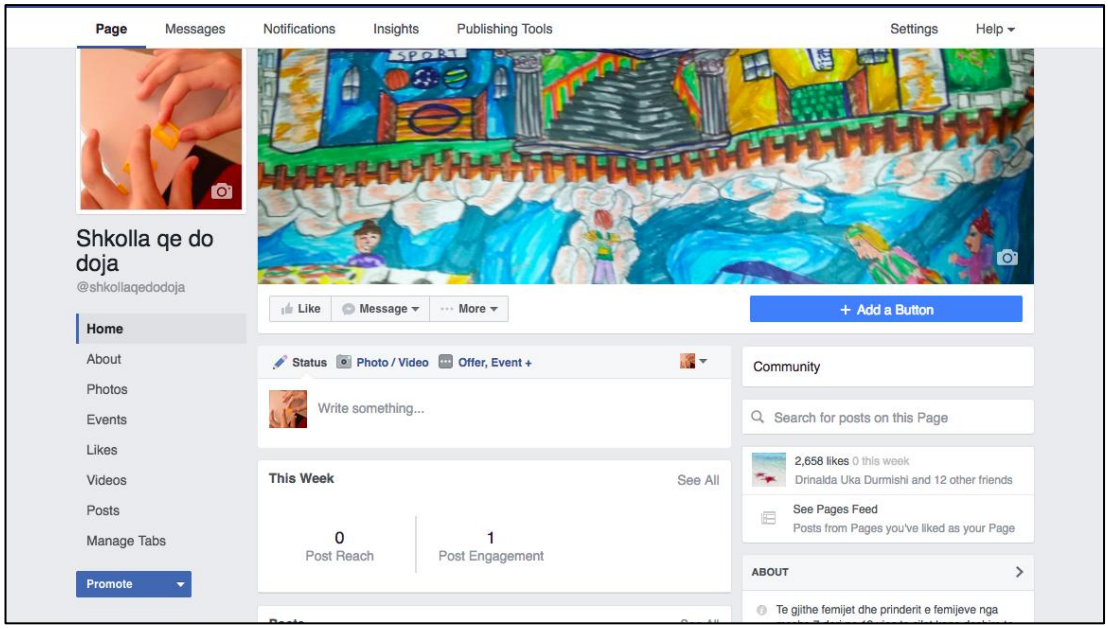


Figure A.1: The social network site of the research where 2658 people are following. (Retrieved November 15, 2016 from https://www.facebook.com/shkollaqedodoja/).

APPENDIX B: Examples of Standardized Designs of Socialist Period.

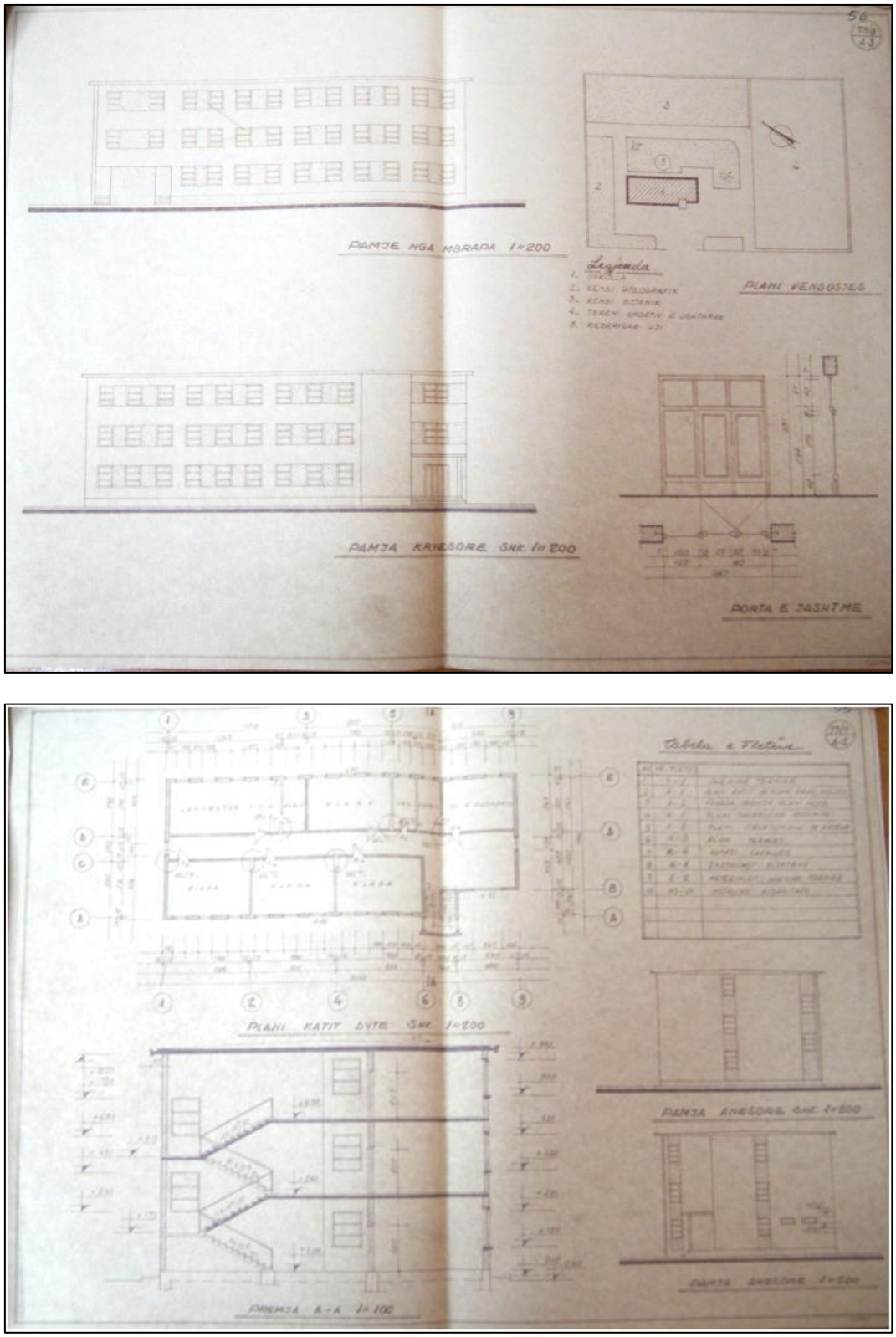


Figure B.1: A school of the year 1978 as an example of standardized designs where pedagogical objectives are translated into outdoor learning space.

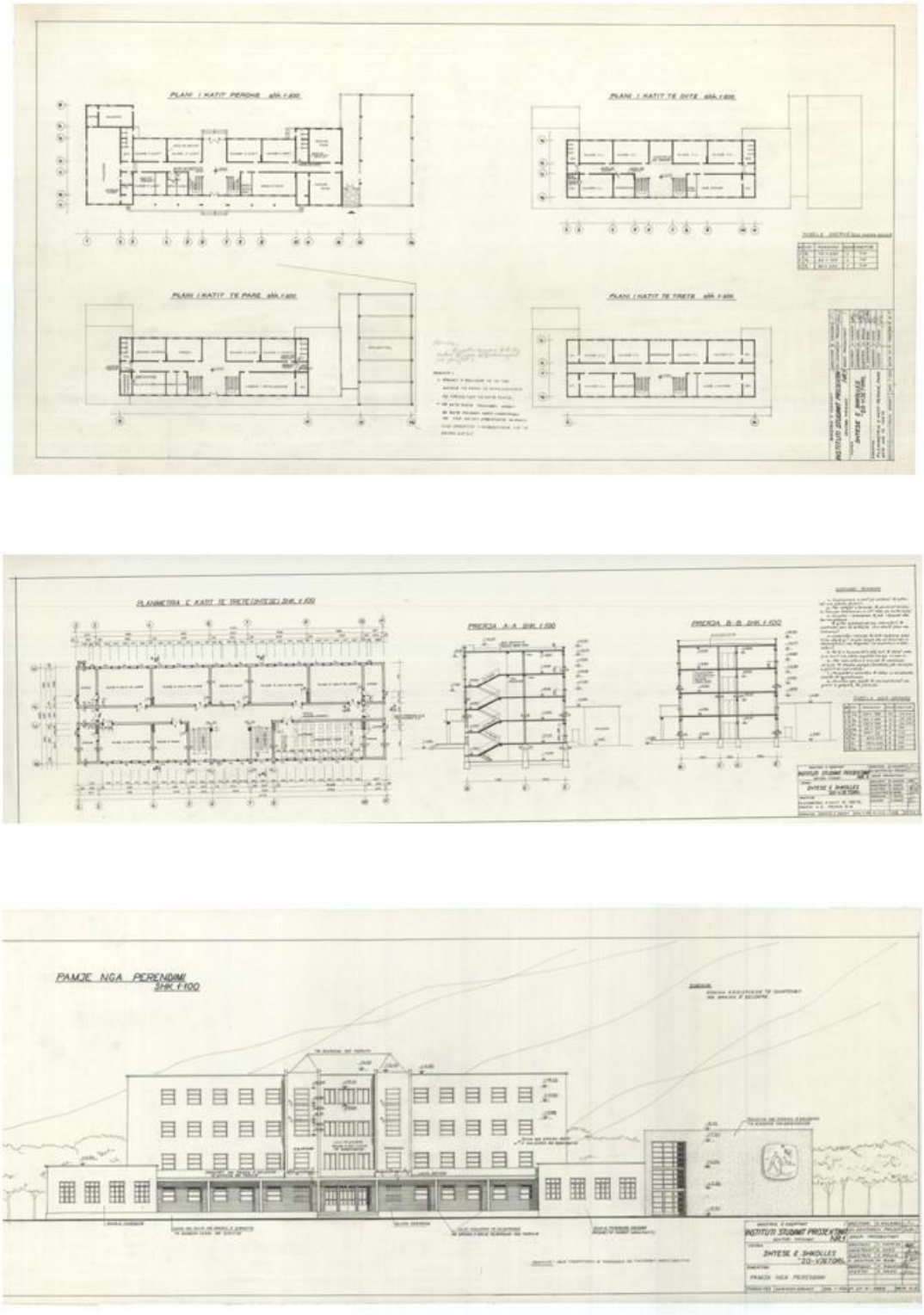


Figure B.2: "20 vjetori" school as an example of standardized designs where pedagogical objectives are translated into interior learning space.

APPENDİX C: Visual Questionnaire

Figure C.1: First page of Visual Questionnaire.

Figure C.2: Second page of Visual Questionnaire.

Figure C.3: Third page of Visual Questionnaire.

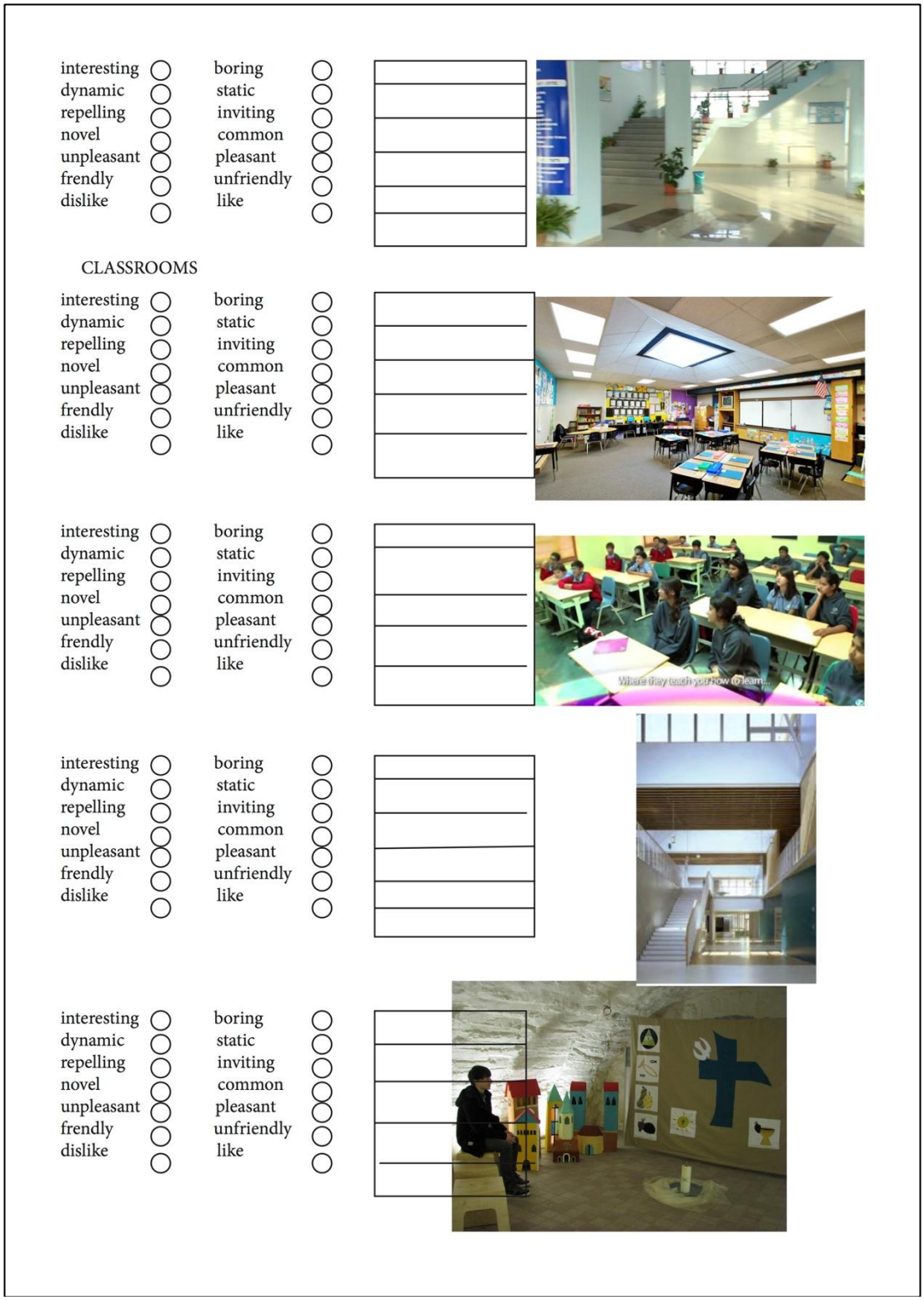


Figure C.4: Fourth page of the Visual Questionnaire.

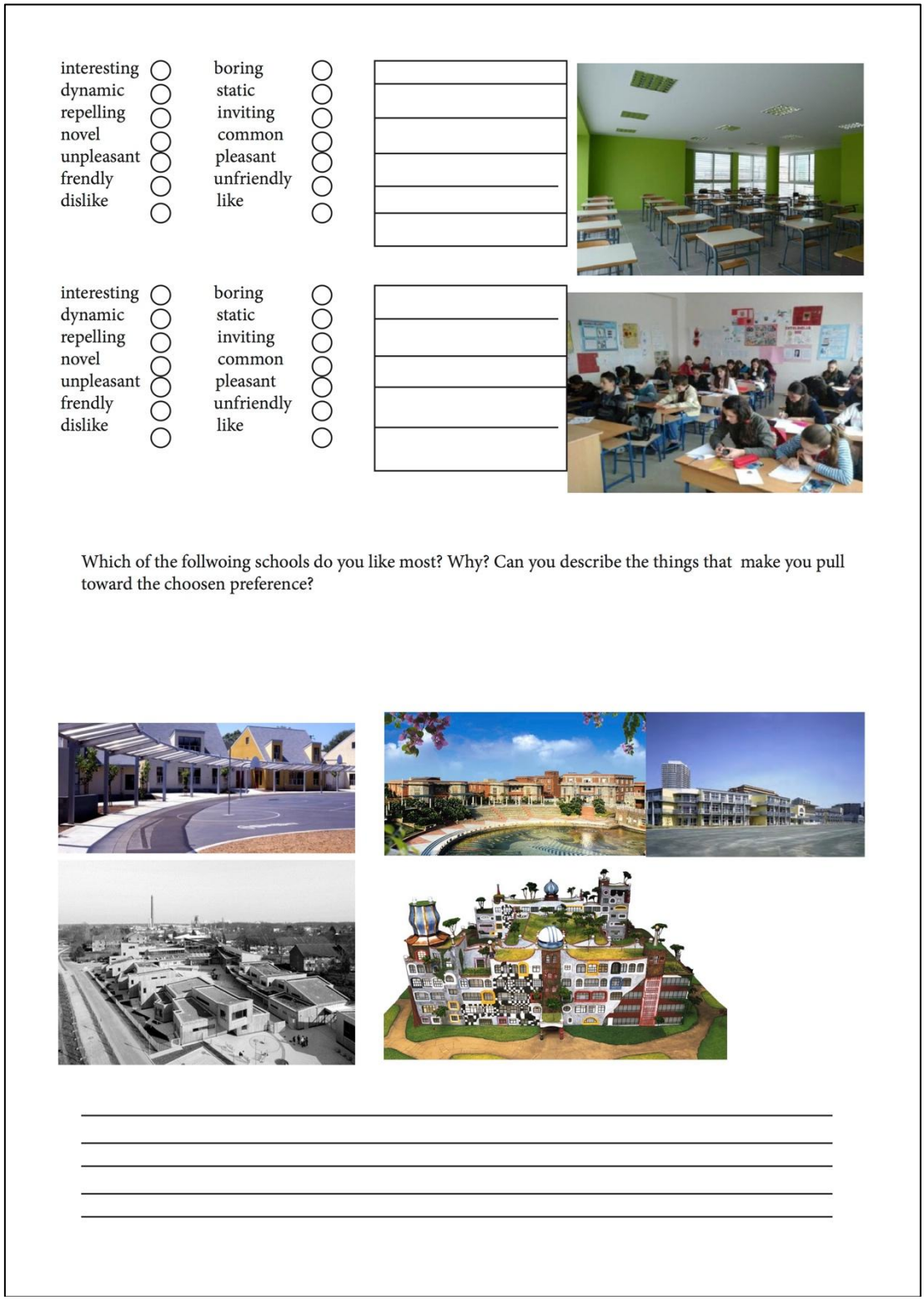


Figure C.5: Visual questionnaire which evaluates different school buildings with the help of some adjectives pre-defined (in Albanian).

APPENDIX D: POE Questionnaire

This questionnaire aims at reading the school spaces by evaluating them, in order to reveal the strengths and weaknesses of environment. Please fill out the followings:

Grade:.....Gender:.....

Time span spend in school space?.....

A. OBSERVING THE BUILDING

Please mark whether you agree or not with the following statements:

		agree	disagree
1. Building is clean and in good conditions. There are no vandalism signs in the walls	1		
2. Children works are exhibited in the classroom walls	2		
3. the works are without racial distinctions	3		
4. The works are exhibited without gender distinction	4		
5. New events are announced in the school building walls by pupils and teachers	5		
6. The building is flexible. It offers common and private spaces at the same time.	6		
7. furniture are movable	7		
8. there are individual spaces for one, two or more pupils to relax	8		
9. There exist open spaces where pupils have space for activities	9		
10. halls and classrooms are spacious for pupils to move freely	10		
11. there are outdoor learning spaces for children to perform with different projects	11		
12. pupils contribute in the school building maintenance by cleaning their own classrooms	12		

B. Please for the following question mark the level of satisfaction: very satisfied=VS, somehow satisfied= SS Less Satisfied=LS, Not satisfied =NS

Physical characteristics

	NS	LS	SS	VS
1. indoor -outdoor connection				
2.the building is suitable for learning/teaching				
3. building is accessible with a wheelchair				
4. building takes in consideration the children height				
5. building has a good control on noise				
6. building uses in maximum natural light				
7. the main entrance is visible from away				

Outdoor Spaces

	NS	LS	SS	VS
1. outdoor areas are suitable for teaching				
2.outdoor learning spaces are next to green areas				
3.suitable outdoor for children play				
4.outdoor learning environment				
5. outdoor learning environments and gathering spaces				
6.individual outdoor learning spaces				

Figure D.1: First page of POE questionnaire.

Learning Spaces

1. there exist a space where I can study on myself
2. teachers and administrator units are located at the same space
3.art room
4. science room
5. teacher room
6. comfortable classroom and stress-less
7. classroom motives me to study
8. class size is suitable
9 . Suitable indoor temperature
10. classroom is well ventilated
11. classroom can be used for other purposes
12. classroom is well lit
13. classroom has direct outdoor connection
14. classroom walls are always exhibiting pupils works
15. halls are always suitable for exhibiting children works

Common Spaces

1. indoor lunch spaces are quite
2. outdoor lunch spaces are quite
3. individual private spaces are present in the school
4. Outdoor spaces for physical activities
5. there are present spaces which help socializing
6. kids arrange the spaces on their own

Technology

1.classrooms have projectors used by children
2.classrooms have projectors used by teachers
3.announcement system

Halls and Passages

1.halls connect the classrooms
2. halls and passages are well designed
3. school building has well designed stairs and orienting signs
4. indoor outdoor passages are all around the school

Outside school appearance

1.school looks good from outside
2. indoor school appearance is child oriented
3.building is in accordance with the surrounding buildings

Figure D.2: Second Page of POE Questionnaire.

4. indoor ceilings are dynamic in height
5.school motivates me
1.school location is in a safe place, out of traffic
2. classrooms are safe
3.outdoor spaces are safe
4. lockers for individual belongings

General impression

other.....

.....

Evaluate your school building from 1 to 5 (1-bad; 5 -very good)

1 2 3 4 5

How much does school meet your needs?

1 2 3 4 5

How much privacy does the school building provides to you?

1 2 3 4 5

How much safe do you feel at school?

1 2 3 4 5

How would you evaluate the following spaces?

Laboratories	1	2	3	4	5
Teacher's room	1	2	3	4	5
Library	1	2	3	4	5
Halls	1	2	3	4	5
Classroom	1	2	3	4	5
Gymnasium	1	2	3	4	5
Sick room	1	2	3	4	5

Figure D.3: POE Questionnaire.

APPENDIX E: Workshops

WORKSHOP 1: EXPLORING SCHOOL SPACES

Nr of participants: 15
Age: 10 years' old
Venue: University Campus

Aim: Exploring school spaces through defining together the school purpose.
Methods used: Brainstorming and post it/ drawings/wish poem/ model making

The process of the workshops:
What is the purpose of the school ?
Draw the indoor learning space you would desire.
Draw the outdoor learning environment you prefer to have lessons.
"i wish my school…"
Make a proposal of a model of school

post it the school purpose

indoor lening spaces

outdoor learning environment

Figure E.1: Moments from Workshop 1.

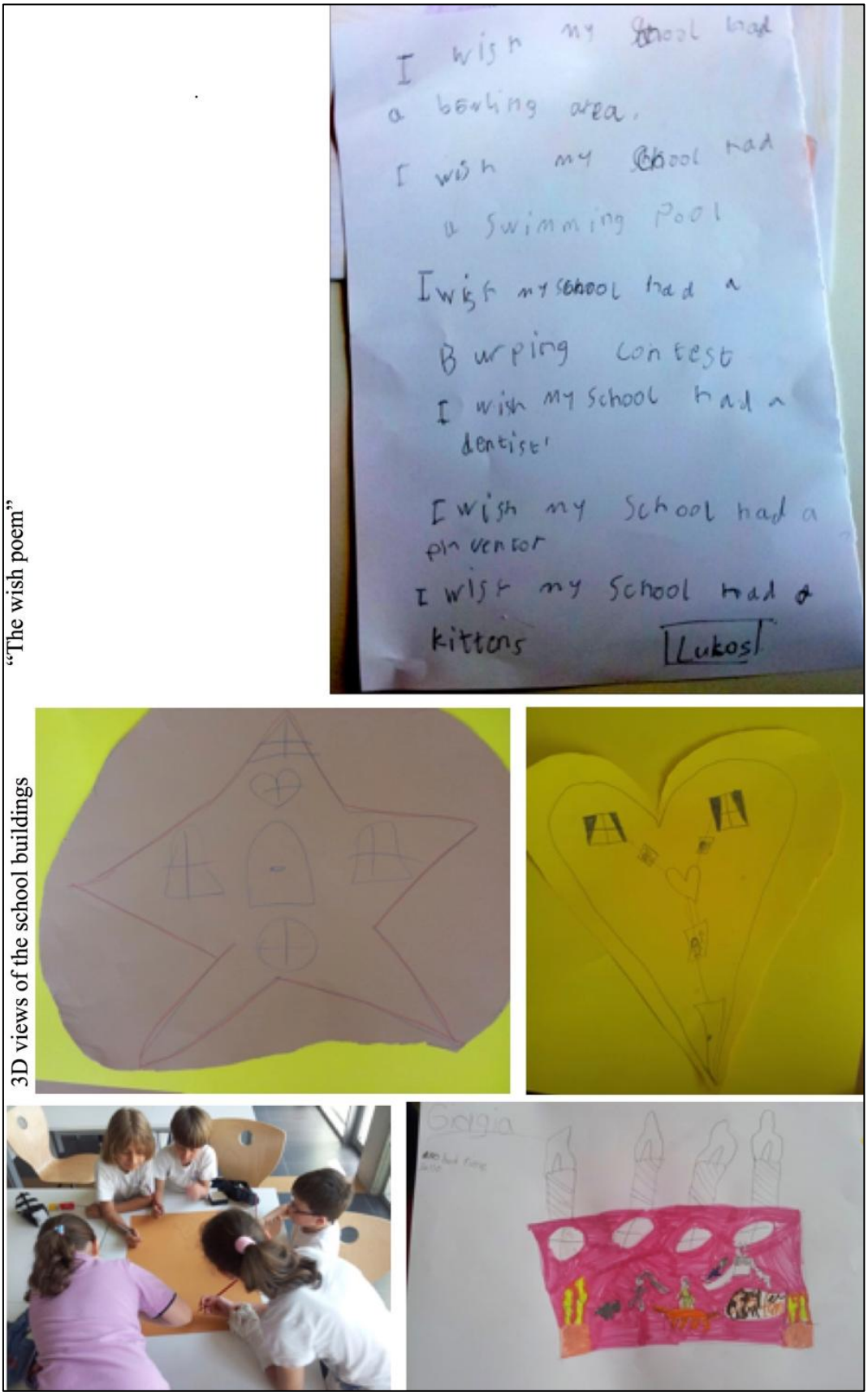


Figure E.2: Moments from Workshop 1.

Figure E.3: A summary from workshop 1.

WORKSHOP 1.1: EXPLORING SCHOOL SPACES

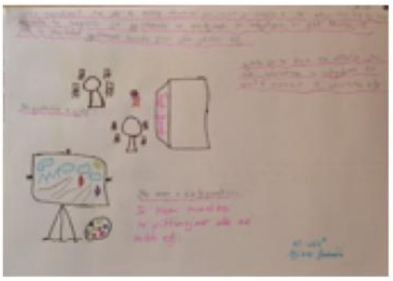
Nr of participants: 25
Age: 10-14 years' old
Venue: "100 vjetori" school

Aim: Exploring school spaces through defining together the school purpose.
Methods used: Brainstorming and post it/ drawings/wish poem/ model making

The process of the workshops:
What is the purpose of the school ?
Draw the indoor learning space you would desire.
Draw the outdoor learning environment you prefer to have lessons.
"i wish my school…"
Make a proposal of a model of school

post it the school purpose

indoor lening spaces



outdoor learning environment

Figure E.4: Moments from Workshop 1.1.

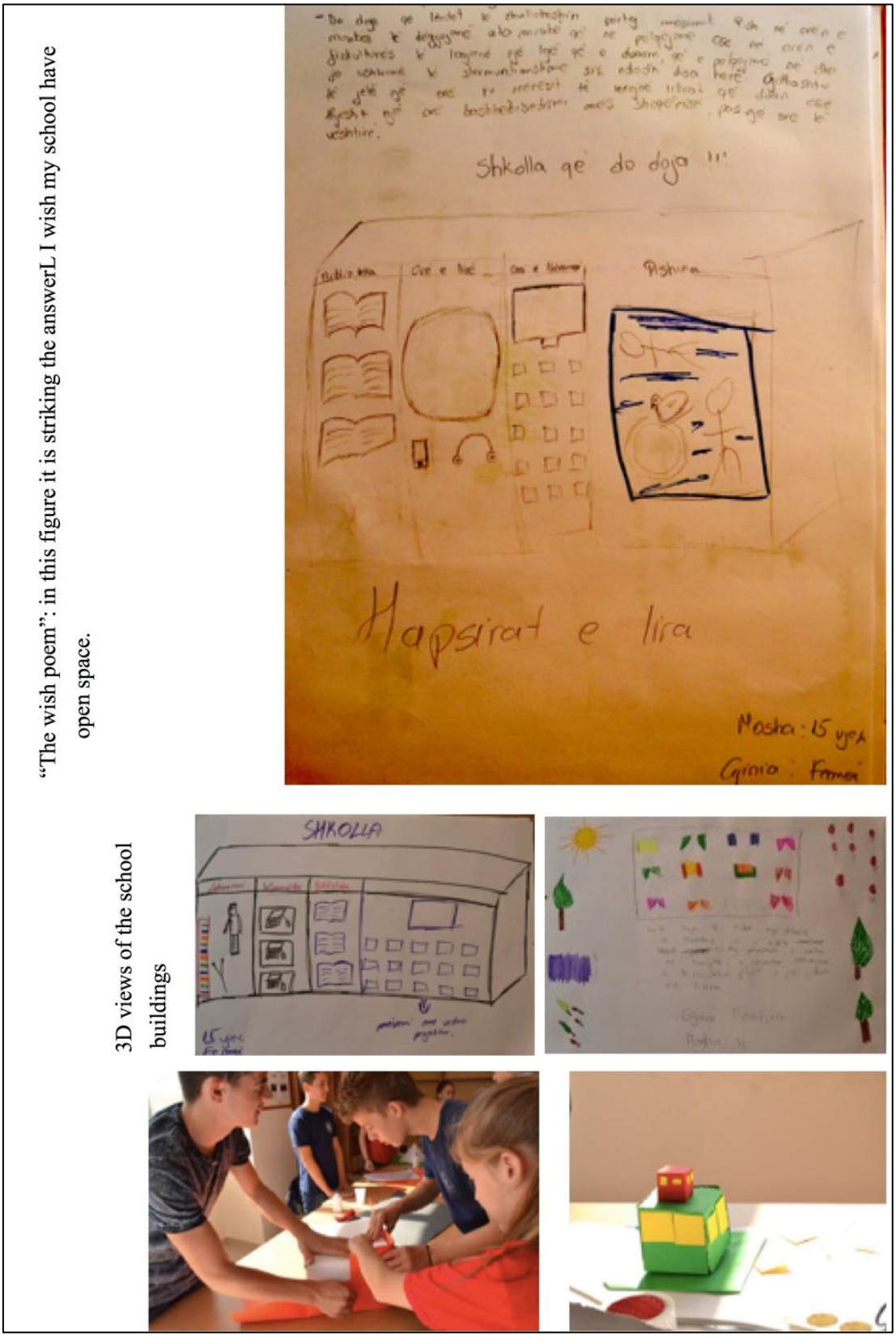


Figure E.5: Moments from Workshop 1.1.

Figure E.6: A summary from workshop 1.1.

WORKSHOP 2:CHILDREN AS OFFICERS OF DESIGNING SCHOOLS OF THE FUTURE

Nr of participants: 76
Age: 10-14 years' old
Venue: "Bajram Curri" school

Aim: Designing the ideal school
Methods used: Drawing/ if i was a mayor activity/ visiting children and asking their collaboration in the classroom

The process of the workshops:
How would you like your ideal school to look like ?
Would you please put a name to your school.
"if i was a mayor" activity.

standardised school building of socialist period

Figure E.7: Moments from Workshop 2.

Figure E.8: A Summary of Workshop 2.

WORKSHOP 3 AND 3.1:DESIGN YOURSELF YOUR SCHOOL

Nr of participants: 294
Age: 10-14 years' old
Venue: home

Aim: Designing the ideal school
Methods used: any method that children would like to participate

The process of the workshops:
poster on inviting to participate
collecting the proposals.

proposals

Figure E.9: A summary of workshop 3 and 3.1.

WORKSHOP 4 & 4.1:MEETING VIRTUALLY SUCCESSFUL SCHOOL BUILDINGS AND POE

Nr of participants: 92+25
Age: 10-14 years' old
Venue: "100 vjetori" school

Aim: Designing the ideal school
Methods used: a visual questionnaire and POE

The process of the workshops:
Projecting virtually the photos
POE

workshop atmosphere

Figure E.10: A summary of the workshop 4 and 4.1.

WORKSHOP 5:WALKTHROUGH ASSESSMENT AND RE-DESIGN PROPOSAL

Nr of participants: 25
Age: 10-14 years' old
Venue: "100 vjetori" school

Aim: Evaluating and Designing
Methods used: walkthrough and drawings

The process of the workshops:

walk through the spaces and discuss what should be removed / changed/ added to the spaces visited

work in groups over architectural drawings to propose solutions.

workshop atmosphere

Figure E.11: Moments from Workshop 5

Figure E.12: Moments from Workshop 5.

Figure E.13: Summary of the workshop 5

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- **Manahasa, O., Ozsoy, A.,** 2016. Encouraging Participatory Design in Learning Spaces, ArchDesign ’15, DAKAM Conferences, 6-8 July2015, Istanbul-Turkey, (Poster Presentation)
- **Manahasa, O., Ozsoy,** A., 2016. Do architects’ and users’ reality coincide? A post occupancy evaluation in a university lecture hall, *ITU A|Z,*13(3), 47-56.